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Twenty Fourth Annual Convention

NATIONAL ASSOCIATION MASTER PLUMBERS

Atlantic City, N. J.

June 23, 24, 1896

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Twenty-Fourth Annual Convention

National Association of Master Plumbers

ATLANTIC CITY, N. J., June 26-28, 1906

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GEORGE S ALDOUS
EDSON GARRABRANT
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} Printing Committee

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GREETING

As year by year we gather in an annual convention,
To bring to one another something helpful, something new;
To tell with satisfaction how our plumbing beats creation,
And how far we've left behind us things our fathers used to do.

We hear about inventions which have set the world a'thinking;
We tell about improvements that the best results insure;
And we think of all the microbes generations have been drinking,
Until sanitary plumbing made the doctors pretty poor.

But when everything is over, and we've said goodbye and parted;
When we've scattered to our labors and our homes throughout the land;
The thing we carry with us is the fellowship which bound us
When we stood as fellow workers, face to face and hand to hand.

We recall the thrill of triumph when we heard of others' progress,
And the breath of inspiration fanned our zeal into a flame;
For the future stretched before us with its widening field of action,
And the manhood in us wakened to a nobler end and aim.

So to-day we bid you welcome as with heart and hand we greet you,
In our homes or in assembly or where'er we chance to meet;
And we offer you our City with its manifold attractions,
Where the glorious old Atlantic rolls her breakers at your feet.

May the days we spend together be replete with joy and brightness,
And the spirit of real comradeship in all things great and small;
For you'll find that little Jersey, with her meadows and mosquitoes,
Has a heart that's true and loyal and that's large enough for all.

Once again we bid you welcome, and we trust this annual session
Which has brought us Master Worker from the North and South and West,
Will be one we'll long remember for its mighty onward movement,
And its unity of feeling in things we count our best.

—JEAN G. BOOBYER, Passaic, N. J.

EDWARD CASPER STOKES
Governor of New Jersey

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ACKNOWLEDGEMENT

DESIRING to present to the delegates attending the Twenty-Fourth Annual Convention of the National Association of Master Plumbers a Souvenir which would be of permanent value to them and a memento of a pleasant stay in our State, the New Jersey State Association have compiled and take pleasure in presenting this Souvenir History of New Jersey.

For assisting us to make this book possible we thank and commend to you those of the Trade who have so liberally advertised in its pages.

We acknowledge the courtesy of The Commonwealth Publishing Company to whom we are indebted for Historical matter and many fine cuts.

It is our earnest desire and hearty wish that your stay in Atlantic City may be pleasant and profitable, and that in future years as you peruse this book or look over the notes you may have made, that you remember with pleasure the days spent in Atlantic City in June.

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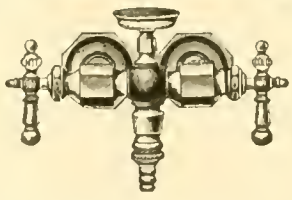

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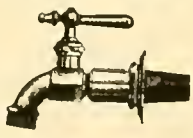

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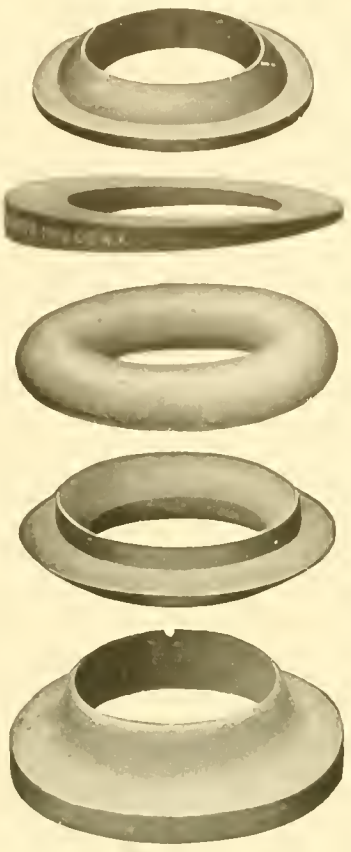

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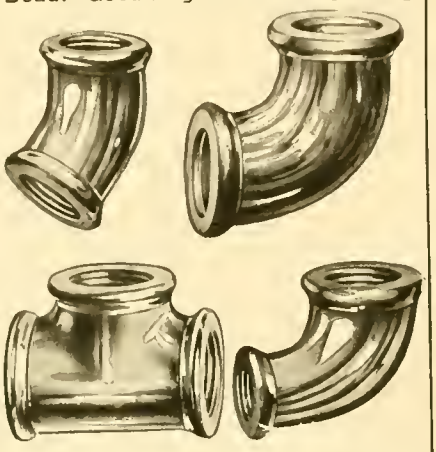

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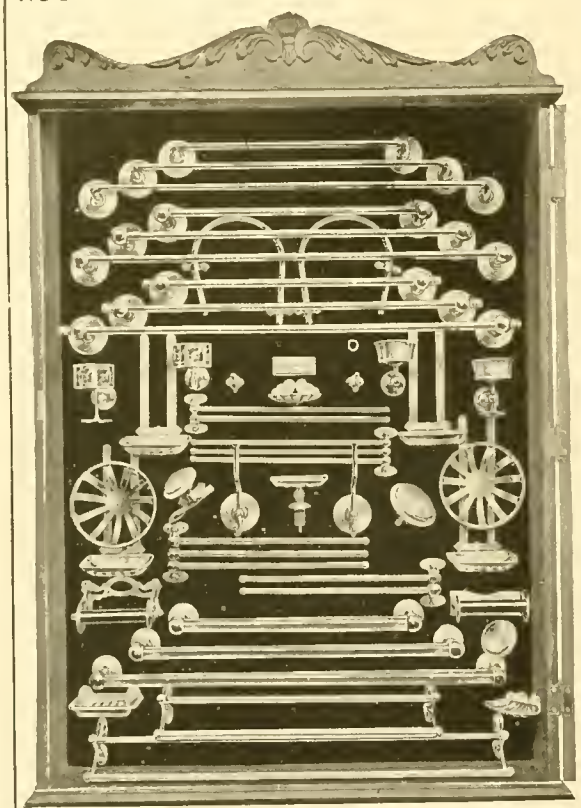

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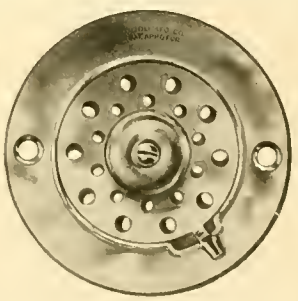

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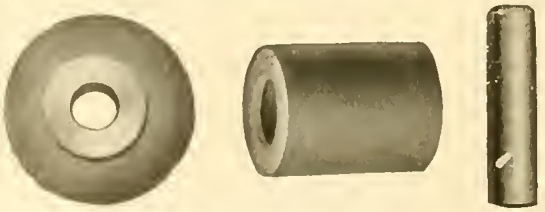

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PROGRAM OF CONVENTIONS

NEW JERSEY STATE HEADQUARTERS, HOTEL "LORAINE"

MONDAY JUNE 25, 1906

New Jersey State Convention, Morning Session at 10 o'clock at Odd Fellows Hall opened by the State President, J. Hunter White. Address of Welcome by Mayor Franklin P. Stoy, introduced by Van Buren Giffin, President of Atlantic City Association.

AFTERNOON

Second Business Session of Convention at Odd Fellows Hall, at 2:30 o'clock.

NATIONAL HEADQUARTERS, HOTEL "RUDOLPH"

TUESDAY MORNING, JUNE 26, 1906

National Convention called to order at Steel Pier at 10 o'clock. Address of Welcome by Mayor Franklin P. Stoy of Atlantic City, introduced by Van Buren Giffin, President of Atlantic City Association.

AFTERNOON

Second business Session of Convention at 2:30.

WEDNESDAY MORNING, JUNE 27, 1906

Third Business Session of Convention at 10:00.

AFTERNOON

Fourth Business Session of Convention at 2:30.

THURSDAY MORNING, JUNE 28, 1906

Fifth Business Session of Convention at 10.00.

AFTERNOON

Closing Session of Convention at 2:30.

PROGRAM OF ENTERTAINMENT

TUESDAY MORNING, JUNE 26, 1906

Ladies Auxiliary to meet visiting ladies, and attend opening of the National Convention. Distribution of tickets by Committee for admission to Young's Pier.

WEDNESDAY MORNING, JUNE 27, 1906

Chair Ride for the ladies, on Board Walk, at 10 A. M. Ladies to assemble at Hotel "Rudolph."

WEDNESDAY EVENING

Card Party at Hotel "Loraine" at 8:30 P. M. Music and Refreshments.

THURSDAY MORNING, JUNE 28, 1906

Ladies assemble at Hotel "Rudolph" at 9 A. M. Trolley Ride to Somers Point. Refreshments and return.

Badges admit the bearer to Steel Pier.

GEO. S. ALDOUS
National State Vice-President.
44 Bloomfield Ave., Passaic, N. J

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ROBERT MARSHALL, East Newark, N. J. EDSON GARRABRANT, Orange, N. J.
H. F BAILLETT, Newark, N. J. GEO. S. O'NEIL, Paterson, N. J.

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STEEL PIER. ATLANTIC CITY, N. J.

VIEW FROM YOUNG'S PIER TO STEEL PIER. ATLANTIC CITY, N. J.

Historical Sketch of the New Jersey State Association of Master Plumbers

The New Jersey State Association of Master Plumbers was organized June 18th, 1902, on a corner of the Steel Pier at Atlantic City, N. J.

The following delegates were in attendance at the Twentieth annual convention of the National Association, and feeling the need of a state body, they met and took measures to form one. Atlantic City, Van Buren Giffen, M. H. Towhey, Frank Walsh, and John Moore; Bloomfield, E. O. Aekerman; Newark, Ira Budd, F. J. Sturm, Wm. Jacobi, Robert Zeitler, S. F. Wilson, A. Selden Walker, R. Schmidt, E. A. Bleything, C. P. Zimmermn and Robert Berla. Passaic; Geo. S. Aldous, Wm. Brooks and John Collins; Paterson, John Campbell; Ridgewood, Wm. P. Morgan; Union Hill, L. A. Menagaux.

These delegates held an informal meeting with Ira Budd as chairman and E. A. Bleything as secretary. The decision to form a state association was unanimous. The name of Ira Budd was selected to be presented to the National President as New Jersey's choice for National State Vice-President.

After receiving his appointment Mr. Budd called a meeting to complete the organization at Newark, July 8th, 1902. This meeting was attended by twenty-one delegates representing Asbury Park, Atlantic City, Newark, North Hudson, Orange and Passaic.

After a full and free discussion a permanent organization was formed. The following were appointed as a committee to draft a Constitution and By-Laws: Geo. S. Aldous, A. Selden Walker and C. P. Zimmerman.

This committee reported at a meeting held in Newark at the rooms of the Newark Association, November 25th, 1902. The Constitution and By-Laws were formally adopted. The following were elected officers: President, Ira Budd, Newark; First Vice-President, Frank Walsh, Atlantic City; Second Vice President, Geo. S. Aldous, Passaic; Third Vice President, W. J. McGuire, North Hudson; Secretary, E. A. Bleything, Newark; Treasurer, A. Selden Walker, Orange.

The second annual convention was held at Passaic, April 21st, at Post Office Hall. Thirteen locals were represented by fifty-five delegates. Officers' reports showed a membership of 389. Organization work was planned and several important resolutions were passed at this meeting. The election of officers resulted as follows: President, Geo S. Aldous, Passaic; First Vice-President, Jas. H. White, Paterson; Second Vice President, M. H. Towhey, Atlantic City; Third Vice-President, Walter Clamplin, Newark; Secretary, John F. Mills, South Orange; Treasurer, A. Selden Walker, East Orange; members Executive Committee, John Campbell, Paterson; William Brooks, Passaic.

The first semi-annual meeting was held at Camden, October 27th, 1903, for the purpose of adopting a bill for the licensing of plumbers to present to the state legislature for passage.

Forty delegates from fourteen locals were present.

The third annual convention met at Orange April 19th, 1904. Delegates to the number of seventy-eight were present, representing nine-

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teen locals. The officers' reports showed the association in a flourishing condition, membership as follows: twenty-six locals and 514 members. The entire set of officers were re-elected for another year.

The fourth annual convention was held March 21st, 1905, at Paterson. The state was honored by having as a guest National President David Craig. Nineteen locals were represented by seventy-three delegates.

The secretary's report showed an enrollment of twenty-six locals and a membership of 511. The election of officers resulted as follows: President, Jas. H. White, Paterson; First Vice-President, M. H. Towhey, Atlantic City; Second Vice-President, Walter Champlin, Newark; Third Vice-President Edson Garrabrant, Orange; Secretary, John F. Mills, South Orange; Treasurer, A. Selden Walker, East Orange; Members of the Executive Committee; John Campbell, Paterson; W. H. Custer, Bridgeton.

A semi-annual convention was held at Trenton, November 21st, 1905, for the purpose of amending the By-Laws and considering the features of a bill to license plumbers that was again to be presented to the state legislature. Eighteen locals were represented by seventy-six delegates.

The fifth annual convention will be held at Atlantic City, June 25th, 1906, at Odd Fellows Hall. Membership May 1st is twenty-nine locals and 643 members. Aggressive and efficient work has been done by the National State Vice Presidents, Mr. Ira Budd of Newark, who served from June 1902 to June 1905, and Mr. Geo. S. Aldous of Passaic, who served from June 1905 to June 1906. The various conventions have been noteworthy from the fact that the attendance has been representative of every part of the state. Several papers of great merit have been read and discussed through a "Good of the Order Committee." The different locals have vied with one another in furnishing hospitable entertainment for the delegates. Passaic led off with a banquet in the evening, and the following locals have not allowed themselves to be outdone; Camden, Orange, Paterson and Trenton.

Efficient officers, loyal members and a righteous cause have enabled Jersey to make rapid strides in association affairs.

BANNER RAISING AT NATIONAL CONVENTION HEADQUARTERS.
HOTEL RUDOLPH, ATLANTIC CITY, JUNE 16, 1902

Resume of the National Conventions

The National Association of Master Plumbers had its origin in the efforts made by leading members of the trade in New York, in the latter part of 1882, to form an association for protection of trade interests; to encourage inventions and improvements in sanitary appliances, and foster national and state legislation for the furtherance of sanitary laws.

The National Association of Master Plumbers was organized June 28 and 29, 1883, at No. 11 West 24th street, New York City; 125 delegates from twenty-one of the leading cities of the Union were in attendance. The following officers were elected at this convention to serve for the ensuing year: President, Col. George D. Scott, New York; First Vice-President, Andrew Young, Chicago; Recording Secretary, Edward Murphy, New York; Financial Secretary, Enoch Remick, Philadelphia; Treasurer, Mortimer J. Lyons, Brooklyn. The above officers, excepting the Financial Secretary, and the following, constituted the Executive Committee: A. Mead, New York City; Geo. Cummings, New York City; Thos. J. Byrne, New York City; James F. Blackshaw, Jersey City, N. J.; E. Dunn, Newark, N. J. Before expiration of term Mr. Mead resigned and J. W. Birkett, of Brooklyn, was appointed to fill vacancy.

The Second Annual Convention was held in Baltimore, June 25, 26 and 27, 1884; 141 delegates were in attendance, representing 27 cities. Constitution and by-laws were adopted The following officers were elected for the ensuing year: President, Andrew Young, Chicago; First Vice-President, James Allison, Cincinnati; Treasurer, William H. Graham, St. Louis; Recording Secretary, J. J. Wade, Chicago; Corresponding Secretary, J. J. Hamblin, Chicago; Financial Secretary, Enoch Remick, Philadelphia; Sergeant-at-Arms, David J. Collins, St. Louis. The President, Vice-President, Recording Secretary and Treasurer, and the following, constituted the Executive Committee: Jeremiah Sheehan, St. Louis; John Sanders, Chicago; Martin Moylan, Chicago; Alex W. Murray, Chicago; Thomas Havey, Chicago.

The Third Annual Convention was held in St. Louis, June 23, 24, 25 and 26, 1885, with an attendance of 160 delegates; 30 cities were represented. The following officers were elected for the third year: President, James Allison, Cincinnati; First Vice-President, George R. Phillips, Providence; Recording Secretary, Thomas McNeil, Cincinnati; Treasurer, M. J. Lyons, Brooklyn; Corresponding Secretary, James Semple, Cincinnati; Financial Secretary, Enoch Remick, Philadelphia; Sergeant-at-Arms, George F. Uber, Philadelphia. Messrs. J. W. Birkett, Brooklyn; Colonel George D. Scott, New York; J. J. Weaver, Philadelphia; Andrew Young, Chicago and William H. Graham, of St. Louis, with the President, Vice-President Recording Secretary and Treasurer, constituted the Executive Committee.

The Fourth Annual Convention was held at Deer Park, Md., June 22 and 23, 1886, at which 139 delegates were in attendance, 27 cities were represented. At the convention the elected officers were: President, James Allison, Cincinnati; First Vice-President, John Trainor, Baltimore; Recording Secretary, Thomas McNeil, Cincinnati; Treasurer M. J. Lyons, Brooklyn; Corresponding Secretary, James

Semple, Cincinnati; Financial Secretary, Enoch Remick, Philadelphia, and Sergeant-at-Arms, D. J. Collins, St. Louis. Messrs. Joseph A. Macdonald, New York; J. J. Weaver Philadelphia; George R. Phillips, Providence; James W. Birkett, Brooklyn, and T. C. Boyd, Chicago, with the President, Vice-President, Recording Secretary and Treasurer, constituted the Executive Committee.

The Fifth Annual Convention was held at Chicago, June 21, 22 and 23, 1887, at which there were 166 delegates in attendance; 43 cities and towns and one state were represented by associations. The following officers were elected for the current year: President, John Byrns, New York; First Vice-President, John Trainor, Baltimore; Recording Secretary Henry G. Gabay, New York; Treasurer, M. J. Lyons, Brooklyn; Corresponding Secretary Walter T. Hudson, Brooklyn; Financial Secretary, Enoch Remick, Philadelphia, and Sergeant-at-Arms, David J. Collins, St. Louis. Messrs. Geo. D. Scott, New York; Edward J Hannan, Washington, D. C.; Jeremiah Sheehan, St. Louis; William Harkness, Jr., Philadelphia, and Rupert Coleman, Chicago, with the President and Vice-President, Recording Secretary and Treasurer, constituted the Executive Committee.

The Sixth Annual Convention was held at Boston, June 26, 27 and 28, 1888, with an attendance of 217 delegates; 45 cities and one state were represented by associations. The following officers were elected for the current year: President, John Trainor, Baltimore; First Vice-President, Ed. J. Hannan, Washington, D. C.; Recording and Corresponding Secretary, John J. Carey, Baltimore; Treasurer John J. Hamblin, Chicago; Financial Secretary, Enoch Remick, Philadelphia, and Sergeant-at-Arms, David J. Collins, St. Louis.

The above officers, with the exception of the Sergeant-at-Arms, and the following gentlemen constituted the Executive Committee: John Byrns, New York; James G. Weldon, Pittsburg; Isaac Riley, Boston; W. F. McCarthy, Topeka, W. H. Rothrock, Baltimore.

The Seventh Annual Convention was held at Pittsburg, June 25, 26 and 27, 1889, with an attendance of 210 delegates; 60 cities and 3 state associations were represented. In all 30 states were represented. The following officers were elected for the current year. President Ed. J. Hannan, Washington, D. C.; First Vice-President, Robert Griffith, Chicago, Ill.; Recording and Corresponding Secretary, George A. Green, Washington, D. C.; Treasurer, Jeremiah Sheehan, St. Louis Mo.; Financial Secretary, Enoch Remick, Philadelphia. The above officers and the following gentlemen constituted the Executive Committee. John Trainor, Baltimore; Col. Geo. D. Scott, New York; Geo. B. Lewis, Brooklyn; Philip H. Murphy, Milwaukee; Chas. Geiger, Buffalo; Daniel G. Finnerty, Boston.

The Eighth Annual Convention was held at Denver, June 17, 18 and 19, 1890, with an attendance of 181 delegates from 39 cities in 19 states. The following officers were elected for the current year: President, Robert Griffith, Chicago; First Vice-President, Joseph A. Macdonald, New York City; Recording Secretary, Joseph R. Alcock, Chicago, Ill.; Treasurer, Mortimer J. Lyons, Brooklyn, N. Y.; Financial Secretary, J. J. Hamblin, Chicago, Ill. The following named gentlemen and above officers constituted the Executive Committee: Ed. J. Hannan, Washington, D. C.; W. F. McCarthy, Denver; W. H. Mitchell, Boston; N. B. Hussey, Omaha; W. G. Reid, Rochester; L. B. Cross, Kansas City.

The Ninth Annual Convention was held at Cincinnati, June 23, 24 and 25, 1891, with an attendance of 202 delegates; there were 56 cities and towns represented in 25 states. The following officers were elected for the current year (1891-92): President, Joseph A. Macdonald, New York City; Vice-President, Jeremiah Sheehan, St. Louis, Mo.; Recording and Corresponding Secretary, M. J. McDermott New York City; Financial Secretary, T. J Tute, Boston, Mass.; Treasurer, W. E. Goodman, Milwaukee, Wis; W. Emmett Crosby, Executive Clerk (office with president, appointed). Owing to the death of President Macdonald, on October 18, 1891, Vice-President Sheehan was called upon to perform the duties of President, and O. J. Gerhard, of St. Louis, the duties of Recording and Corresponding Secretary. With the exception of the Financial Secretary and Executive Clerk, the above named officers and the following named gentlemen constituted the Executive Committee: Robert Griffith, Chicago; C. J. Prescott, Topeka; John Trainor, Baltimore; Wm. McCoach, Philadelphia; W. J. Freaney, St. Paul; J. A. Harris, Sioux City.

The Tenth Annual Convention was held at Washington, D. C., June 14, 15 and 16, 1892, with an attendance of 260 delegates from 29 states. There were 65 cities and 4 state associ-

ations represented. The following officers were elected for the current year (1892-93): President, Jeremiah Sheehan, St. Louis; Vice-President, Daniel G. Finnerty, Boston, Mass.; Recording and Corresponding Secretary, O. J. Gerhard, St. Louis, Mo.; Financial Secretary, T. J. Tute, Boston, Mass.; Treasurer, W. E. Goodman, Wilwaukee, Wis. With the exception of the Financial Secretary, the above officers and the following named gentlemen constituted the Executive Committee: Robert Griffith, Chicago; Thos. H. Radcliffe, Brooklyn; Henry G. Gabay, New York; C. T. Paul, Los Angeles; F. E. Hopper, Cincinnati; D. F. Sullivan, Dallas.

The Eleventh Annual Convention was held at Milwaukee, June 13, 14 and 15, 1893, with an attendance of 300 delegates. Number of cities represented, 67; number of states represented, 23; number of state associations represented, 3. The following officers were elected for the current year (1893-94): President, Daniel G. Finnerty, Boston; Vice-President John Mitchell, New York; Financial and Corresponding Secretary, David Smith, Boston; Treasurer, W.E. Goodman, Milwaukee. The above officers and the following named gentlemen composed the Executive Committee: Jeremiah Sheehan, St. Louis; Henry G. Gabay, New York; Thomas H. Radcliffe, Brooklyn; M. J. Duffy, Louisville; J. J. Wade, Chicago; Jas. G. Weldon, Pittsburg.

The Twelfth Annual Convention was held at Detroit, Mich., June 19, 20 and 21, 1894, with an attendance of 362 delegates. Number of states represented, 25; number of local associations represented, 76. The following officers were elected for the current year (1894-95): President John Mitchell, New York; Vice-President, L. B. Cross, Kansas City, Mo., Financial and Recording Secretary, H. J. Pattison, New York; Treasurer, W. E. Goodman, Milwaukee, Wis. The above officers and the following gentlemen composed the Executive Committee: Daniel G. Finnerty, Boston; James Meathe, Detroit; Henry G. Gabay, New York; John Trainor, Baltimore; C. C. Dewstoe, Cleveland; Paul Redieske, Chicago.

The Thirteenth Annual Convention was held in Philadelphia, Pa., June 11, 12 and 13, 1895, with an attendance of 407 delegates. Number of states represented, 30; number of local associations represented, 80. The following officers were elected for the current year (1895-96): President, James Meathe, Detroit, Mich.; Vice-President, Thomas H. Radcliffe, Brooklyn, N. Y. By reason of resignation of Brooklyn Association the Vice-Presidency was made vacant, and Wm. H. Doyle, of Philadelphia, was elected to the Vice-Presidency. Financial and Recording Secretary, James H. Crumley, Detroit; Treasurer, W. E. Goodman, Milwaukee, Wis. The above officers composed the Executive Committee, including the following named gentlemen: John Mitchell, New York; Daniel G. Finnerty Boston; L. B. Cross, Kansas City; Wm. H. Doyle, Philadelphia; C. C. Dewstoe, Cleveland, T. P. Culloton, Chicago; Patriek Tierney, Providence; elected to fill vacaney caused by resignation of Brooklyn Association.

The Fourteenth Annual Convention was held in Cleveland, Ohio, June 2, 3 and 4, 1896, with an attendance of 438 delegates. Number of states represented, 28; number of towns and cities represented, 113. The officers elected for the current year (1896-97) were: President William H. Doyle, Philadelphia, Pa.; Vice-President, T. P. Culloton, Chicago, Ill.; Financial and Recording Secretary, William McCoach, Philadelphia, Pa.; Treasurer, W. E. Goodman, Milwaukee, Wis. Messrs. James Meathe,Detroit; C. C. Dewstoe, Cleveland; John Trainor, Baltimore; John Yule, New York; P. M. Murphy, Chicago; Jos. A. Weldon, Pittsburg; Ed. J. Hannan, Washington; Jeremiah Sheehan, St. Louis; James Ahern, Hartford; Jno. L. E. Firmin, San Francisco; David Yarborough, Atlanta, and the officers, composed the Exeeutive Committee.

The Fifteenth Annual Convention was held in New York City, June 15, 16 and 17, 1897, with an attendance of 475 delegates. Number of states represented, 30; number of towns and cities represented, 113. The officers elected for the current year (1897-98) were: President, Thomas P. Culloton, Chicago; Vice-President, Samuel L. Malcolm, New York; Financial and Reeording Secretary, John G. Roland, Chicago; Treasurer, W. E. Goodman, Milwaukee. The following named gentlemen, including the above officers, constituted the Exeeutive Committee: Wm. H. Doyle, Philadelphia; James Meathe, Detroit; C. C. Dewstoe, Cleveland; Ed Braden, Jr., San Antonio; M. J. Ward, St. Louis; Jno. L. E. Firmin, San Francisco; John Hiekman, Paterson; James Ahern, Hartford; Hubert Kelly, Minneapolis; James J. Johnson, Denver; P. M. Murphy, Chicago.

The Sixteenth Annual Convention was held in San Antonio, Texas, April 13, 14 and 15,

1898, with an attendance of 384 delegates. Number of states represented, 30; cities and towns represented, 90. Officers elected for the current year (1898-99): President, Samuel L. Malcolm, New York; Vice-President, P. M. Murphy, Chicago; Financial and Recording Secretary, Andrew H. Brown, New York; Treasurer, W. E. Goodman, Milwaukee. Including the above officers, the following gentlemen composed the Executive Committee: Thomas P. Culloton, Chicago; John Trainor, Baltimore; Jeremiah Sheehan, St. Louis; John Mitchell, New York; James Meathe, Detroit; Wm. H. Doyle, Philadelphia; Jno. L. E. Firmin, San Francisco; Ed Braden, Jr., San Antonio; Hubert Kelly, Minneapolis; Edward C. Kelly, Boston; James M. Healy, Indianapolis.

The Seventeenth Annual Convention was held in New Orleans, La., March 8, 9 and 10, 1899; 339 delegates were reported; 27 states and 65 cities and towns were reported. The officers elected for the current year (1899-1900) were: President, P. M. Murphy, Chicago; Vice-President, P. Tierney, Providence; Financial and Recording Secretary, Charles T. Byrne, Chicago; Treasurer, W. E. Goodman, Milwaukee; Messrs. Samuel L. Malcolm, New York City; John Trainor, Baltimore, Wm. H. Doyle, Philadelphia; Thomas C. Boyd, Chicago; E. D. Hornbrook, Kansas City; Jno. L. E. Firmin, San Francisco; Edward C. Kelly, Boston; Daniel A.Farrell, Anniston, Ala.; F. Wernentin, Jr., Davenport, Ia.; Louis Poplowsky, Cleveland, and Martin Fallon, Brooklyn, were elected Executive Committeemen, and with the officers composed the Executive Committee.

The Eighteenth Annual Convention was held in Baltimore, Md., June 12, 13, 14, 1900; 466 delegates were reported present; 30 states and 100 cities and towns were represented. The officers elected for the current year (1900-1901) were: President, P. Tierney, Providence; Vice-President, E. D. Hornbrook, Kansas City; Financial and Recording Secretary, James C. Conroy, Providence; Treasurer, W. E. Goodman, Milwaukee. Including the above officers, the following gentlemen composed the Executive Committee: P. M. Murphy, Chicago; Wm. H. Doyle, Philadelphia; John Trainor, Baltimore; Louis Poplowsky, Cleveland; Ed J. Hannan, Washington; C. A. Hartwell, New Orleans; J. Warren French, Boston; Geo. E. Smith, Denver, Harry M. Noble, Brooklyn; John J. Foy, St. Louis, and John B. Smith, Lewiston, Me.

The Nineteenth Annual Convention was held in Kansas City, Mo., June 4, 5, and 6, 1901. The names of 464 delegates were sent in and passed upon by the committee on credentials. The delegate cards of admission showed only 354 present; 32 states and 94 cities were represented. The officers elected for the current year (1901-1902) were, President, E. D. Hornbrook, Kansas City, Mo.; Vice-President, Chas. Polacheck, Milwaukee, Wis.; Financial and Recording Secretary, Geo. P. Kirtley, Kansas City, Mo.; Treasurer, W. E. Goodman, Milwaukee, Wis. The following, including the foregoing officers, were elected as members of the Executive Committee: P. Tierney, Providence, R. I.; Geo. F. Kirkhoff, Indianapolis, Ind.; Thos. F. Gaynor, New York; Mr. Fred Fox, Jr., Chattanooga, Tenn., Thomas J. Young, Mobile, Ala., John J. Foy, St. Louis, Mo.

The Twentieth Annual Convention was held in Atlantic City, N. J., June 17, 18 and 19, 1902. The names of 542 delegates were reported by the committee on credentials; 35 states and territories and 116 cities and towns were represented. The officers elected for the current year (1902-1903) were, with the exception of one member of the Executive Committee, the same as the preceding year; the exception being Mr. J. Warren Freneh, of Boston, who asked to be excused. Mr. David Craig, of Boston, Mass., was the new member of the Executive Committee in the place of Mr. Freneh.

The Twenty-first Annual Convention was held in San Francisco, Cal., May 19, 20 and 21, 1903. The names of 474 delegates were sent in and reported entitled to seats. The delegates' cards of admission and special reports after convention showed that 337 delegates were actually present. The states represented numbered 34, and the cities 110. The officers elected for the current year (1903-1904) were: President, E. D. Hornbrook, Kansas City, Mo. Vice-President, David Craig, Boston, Mass.; Financial and Recording Secretary, Jas. H. Richardson, Kansas City, Mo.; Treasurer, W. E. Goodman, Milwaukee, Wis. The following with the officers above named composed the Executive Committee; P. Tierney, Providence, R. I.; Geo. F. Kirkhoff, Indianapolis, Ind.; Thomas F. Gaynor, New York City; W. B. Coffee, Tacoma, Wash.; Jos. A. Weldon, Pittsburg, Pa.; Thos J. Young, Mobile, Ala.; Wm. F. Wilson, San Francisco, Cal.; R. B. Moodie,

Dayton, Ohio; C. Irving, Denver, Colo.; Wm. T. McGurrin; Grand Rapids, Mich.; and Wm. H. Rothrock, Baltimore, Md.

The Twenty-second Annual Convention was held in St. Louis, Mo., on September 6, 7 and 8, 1904. The names of 603 delegates were reported as entitled to seats in the convention, and the delegates' cards and reports showed 459 present; 35 states and 135 cities were represented. The officers and directors for the current year were: President, David Craig, Boston, Mass.; Vice-President, C. J. Boyd, Chicago; Secretary, Daniel Shannon, Boston; Treasurer, W. E. Goodman, Milwaukee, Wis. Directors: E. D. Hornbrook, Kansas City, Mo.; W. B. Coffee, Tacoma, Wash.; Jos. A. Weldon, Pittsburg, Pa.; Thos. J. Young, Mobile, Ala.; R. B. Moodie, Dayton, Ohio; Wm. F. Wilson, San Francisco, Cal. Chris. Irving, Denver, Colo.; Alfred Gawthrop, Wilmington, Del.; T. A. Hill, New York City; C. Aneshaensel, Indianapolis, Ind.; Jas. H. Aitken, New Orleans, La.

The Twenty-third Annual Convention was held in Atlanta, Ga.; June 6, 7 and 8, 1905. The names of 599 delegates were reported as entitled to seats in the convention, and the delegates' cards showed there were 454 present. Thirty-six states and territories and 121 cities were represented. The officers and directors for the current year are: President, Chas. J. Boyd, Chicago; vice-president, R. B. Moodie, Dayton; secretary, Chas T. Byrne, Chicago; treasurer, William McCoach, Philadelphia directors: David Craig, Boston; Jas. A. Weldon, Pittsburg; Wm. F. Wilson, San Francisco; W. T. Crean, Denver, John J. Foy St. Louis; Andrew H. Brown, New York City; John S. Keily, New Orleans; Geo. F. Uber, Philadelphia; W. H. Halsey, Milwaukee; Harry A. Miller, Wilmington; Jacob Isaacs, Louisville.

YOUNG'S PIER, ATLANTIC CITY, N. J.

BATHING SCENE FROM YOUNG'S PIER, ATLANTIC CITY, N. J.

Directory of Members
New Jersey State Association of Master Plumbers

NEW JERSEY

National State Vice-President, Geo. S. Aldous,
14 Bloomfield ave., Passaic
President State Association, James H. White,
218 Clay St., Paterson.
Secretary State Association, J. F. Mills,
75 Riggs pl., South Orange.

ALLENHURST.
(See Asbury Park.)

ASBURY PARK AND VICINITY ASS'N.

President, Andrew T. Van Cleve,
15 Pilgrim Pathway, Ocean Grove.
Secretary, Chas. H. Watson.....Asbury Park
Bimbler, Fred .....Bradley Beach
Brown, Fred .....Asbury Park
Crowell & Walton .....Asbury Park
Forsyth & Boyce .....Asbury Park
Fleteroft, J. Edw .....Allenhurst
Hallmeyer, Wm. .....Asbury Park
Hays & Co. .....Asbury Park
Landis, Howard .....Asbury Park
Leonard, John .....Asbury Park
Lepine, Wm. .....Asbury Park
Reid, S. .....Asbury Park
Reid, John T. .....Ocean Grove
Turner, Geo. .....Asbury Park
Van Cleve, Andrew T. .....Ocean Grove
Young, Wm. .....Asbury Park

ANGLESEA.
(See Five Mile Beach Ass'n.)

ARLINGTON.
(See West Hudson Ass'n.)

ATLANTIC CITY.

President, Van Buren Giffin.....1518 Atlantic ave.
Secretaries, Bolte & Albertson .....42 Law Building
Albertson & Young Co. .....2025 Atlantic ave.
Brown, H. D. .....2425 Atlantic ave.
Coogan, N. .....2010 Atlantic ave.
Currie Company .....1216 Atlantic ave.
Freeman, L. E. .....Preston Bldg.
Gaskill, Norris .....1915 Atlantic ave.
Giffin, V. B. & Son .....1518 Atlantic ave.
Kirkbride, H. W. .....817 Atlantic ave.
Lane, Stephen Co .....1414 Pacific ave.
Moore, J. H. .....1507 Atlantic ave.
Roberts Bros .....2221 Arctic ave.
Specht Bros.....125 N. Virginia ave.
Thompson, C. S. .....2923 Atlantic ave.
Towhey, M. H. .....9 S. Delaware ave.
Walsh, Frank .....919 Atlantic ave.

BAYONNE.

President, John Gilbertson .....15 Cottage st.
Corresponding Secretary, W. C. Devlin....207 Ave. D.
Bannon, Jas. J. .....237 Ave. D.
Beck Bros. .....9 W. 8th st.
Bernhard, W. F. .....33 W. 18th st.
Conroy, T. J. .....185 Ave. D.
Denton, Fred J. .....608 Ave. D.
Devaney, John J. .....297 Ave. D.
Devlin, W. C. .....207 Ave. D.
Epstein, Henry .....143 Ave. C.
Gilbertson, John .....15 Cottage st.
Gill, Andrew T .....246 Ave. D.
Haskard, W. T. .....228 Ave. D.
Higgins, W. F. .....773 Ave. D.
Hovell, James .....915 Ave. D.
Hovell, John J .....979 Ave. D.
Inngerman Bros. .....393 Ave. D.
Knight & Burn .....670 Ave. D.
Mowery, Samuel .....23 West 25th st.
Oliver, W. C. .....10 West 7th st.
Tourney, Wm. .....27 Silver st.

BLOOMFIELD.
(See Montclair-Bloomfield Ass'n.)

BOGOTA.
(See Hackensack and Vicinity Ass'n.)

BRADLEY BEACH.
(See Asbury Park Ass'n.)

BRIDGETON.

President, C. Anderson.
Secretary, Wm. H. Custer.
Chapman, Jas.
Custer & Richards.
Grim, Jos.
Harper, Geo, W.
Horner Bros.
Martin-Anderson Co.
Taylor & Hepner.

CAMDEN.

President, Robert Macintosh .....515 Federal st.
Secretary, Edward Conner .....1139 S. 3d st.
Andress, E. B. & Bros .....221 S. 5th st.
Brower, Chas. H. .....29½ Market st.
Bryan, J. T. .....601 N. 3d st.
Conner, Edward .....1139 S. 3d st.
Conner, James A. .....8th and Federal sts.
Cramer, C. W. .....11 Haddon ave
Farrell, Harry J. .....102 N. Front st.
Francis, H. B .....322 Knighn ave.
Hammell, H. B. .....1738 Broadway
Hammond, Geo. F. .....18 S. 3d st.
Heppard, Alfred .....1135 S. 4th st.
Hutchinson, B. H. .....124 N. 3d. st.
Jackson, E. T. .....1134 S. Front st.
Johanness, Henry G. .....57 N. 2d st.
Kelly, Edward F. .....26 S. 4th st.
Leathwhite, Geo .....820 Broadway

READY FOR A SAIL, ATLANTIC CITY, N. J

EASTER SUNDAY, ATLANTIC CITY, N. J

Limroth, Ernest E. ..... 427 Federal st.
Longheed, Wm. ..... 411 Vine st.
Macintosh, Robert ..... 515 Federal st.
Milby, J. B. ..... 3214 Federal st.
Mowrey, John W ..... 676 Ferry road
Muenich, August ..... 1984 Federal st.
Papeta, J. T. ..... 1027 N. 27th st.
Patton, Edward ..... 9th and Bridge ave.
Rudderow & Derrick ..... 120 Federal st.
Simpson, Lionel C. ..... 820 Broadway
Smith, A. J. ..... 2631 Westfield ave.
Stone, Morton M ..... 515 Chestnut st.
Walker, F. S. ..... 828 Market st.
Walton, James F ..... 2d and Main sts.
Walton, Thomas, Jr ..... 1110 S. 4th st.
Zimmerman, Frank ..... Liberty and Rose sts.

CAPE MAY.

President, B. S. Curtis.
Secretary, Thos. S. Stevens.
Beneckert, M. C. & Sons.
Cape Island Gas Co.
Curtis, B. S.
Reeves, G. W.

CLIFTON.

(See Paterson.)

CLOSTER.

(See Englewood and Vicinity Ass'n.)

EAST NEWARK.

(See West Hudson Assn')

EAST RUTHERFORD.

(See Rutherford and Vicinity Ass'n.)

EDGEWATER.

(See Englewood and Vicinity Ass'n.)

ELIZABETH

President, H. A. Rath ..... 1217 E. Broad st.
Secretary, C. B. Lounsberry ..... 4 Julian place
Brucklacher Bros ..... 1165 Elizabeth ave.
Conrad, John F. ..... 815 Elizabeth ave.
Dederick, James W ..... 33 1st st.
Duncan Bros. ..... 37 Butler st.
Faulks, James H ..... 1151 E. Jersey st.
Heald & Dravis ..... 29 Broad st.
Hoffman, L. A. ..... 254 N. Broad st.
Kleinhans, Henry ..... 1217 E. Grand st.
Krebs, Henry ..... 811 Elizabeth ave.
Lounsberry, Chas. B ..... 4 Julian place
Lowe, Thos. ..... 511 Broadway
MacGregor & Mulford ..... 12 Julian place
Mccabe, L. C. ..... 408 Jefferson ave.
Rath, H. A ..... 1217 E. Broad st.
Walsh, W. A ..... 218 2d st.

ENGLEWOOD AND VICINITY ASS'N.

President, Jas. A. Griffin ..... Englewood
Secretary, A. Lee Bloomer ..... Englewood
Alexander, Wm. H. ..... Englewood
Baldwin, Chas. W. ..... Englewood
Du Bois, Chas. L. ..... Englewood
Elmere, L. E ..... Englewood
Ghent, Herman H ..... Fort Lee, N. J.
Gomm, Napoleon ..... Englewood
Gomm, Wm. ..... Ridgefield, N. J.
Graham, Jno. A. ..... Tenafly, N. J.
Griffin, Jas. F. ..... Englewood
Hickey & Baker ..... Englewood
Kingsley, Thos. A. ..... Englewood
Leonhard & Lautenschlager ..... Fort Lee, N. J.
Paglinghi, Louis ..... Fort Lee, N. J.
Stephen & Sherman ..... Closter
Smith, Wm. H ..... Edgewater

FIVE MILE BEACH ASS'N.

President, L. J. McCormick ..... Wildwood
Secretary, C. W. Pettibone ..... Wildwood
Johnson, M. L ..... Holley Beach, N. J.
McCormick, L. J ..... Wildwood, N. J.
Pettibone, C. W ..... Wildwood, N. J.
Shriver Bros ..... Anglesea, N. J.

FORT LEE.

(See Englewood Ass'n.)

GLASBORO.

Voelker, C. A.

GUTTENBURG.

(See North Hudson Ass'n.)

HACKENSACK AND VICINITY ASS'N

President, Frank Ackerman ..... Hackensack
Cor. Sec., Jas. T. Hutchinson, 293 Main st., Hackensack
Ackerman, Frank ..... Hackensack
Brower, I. S ..... Oradale, N. J.
DeAngulo, Daniel ..... River Edge, N. J.
De Baum, Newton ..... Hackensack
Demorest, Wm. C ..... Westwood, N. J.
Doughty, E. C. ..... Hackensack
Goetz, Geo. J. ..... Richfield Park
Hutchinson & Andress ..... Hackensack
Lipkemann, Henry ..... Ridgefield Park, N. J.
Shaffer, Geo. ..... Hackensack
Tallman, Harrison ..... Ridgefield Park
Vreeland, S. H ..... Bogota, N. J.

HARRISON.

(See West Hudson Ass'n.)

HASBROOK HEIGHTS

(See Rutherford and Vicinity Ass'n.)

HOBOKEN.

President, August Pflough ..... 106 Adams st.
Secretary, J. A. Marshall ..... 207 Washington st.
Bach, Chas ..... 541 Bloomfield st.
Bowes, Thos ..... 410 Washington st.
Clarke, Jas ..... 413 Newark st.
Drisen, J ..... 44 Second st.
Ehrens, John ..... 72 Adams st.
Hanley, T. J ..... 155 Ninth st.
Hourigan, J. F ..... 806 Washington st.
Jansen, B ..... 340 Garden st.
Jurgensen, E. ..... 95 Clinton st.
Kniffen, J. H ..... 105 Ninth st.
McGovern, B. ..... 211 Fourteenth st.
Pflugh, August ..... 106 Adams st.
Runton, J ..... Clinton and Tenth st.
Sinclair, G. M ..... 106 Fourth st.
Walsh, Wm ..... 362 Sixth st.

IRVINGTON.

(See Newark.)

BOARD WALK, SHOWING AUDITORIUM, ATLANTIC CITY, N. J

LIFE GUARDS TO THE RESCUE, ATLANTIC CITY, N. J.

JERSEY CITY.

President, James A. Joanes, 741 Grand st.
Secretary, M. P. Moran, 198 12th st.
Anderson Bros .....394 Grove st.
Barclay, Wm. A. .....311 Pacific ave.
Becker, A. E. .....484½ Jackson st.
Birkenstock, John G. .....Ocean ave.
Blackshaw, Jas. F .....218 Monticello ave.
Breher Bros. .....357 Palisade ave.
Chandlers, R. H .....79 Congress st.
Connelly, Robert J. .....458 Grove st.
Conlson, R. J .....578 Summit ave.
Crescent Plumbing Co. .....550 Communipaw ave.
Cross, Wm. J .....157 Webster st.
Culbert, Wm. J .....196 Railroad ave.
Deitz, John F .....144 Linden ave.
Dickenson, J. Stewart .....743 Bergen ave.
Dickenson, W. H. & Co .....715 Grand st.
Dittman, Adam J., Jr .....204 Pavonia ave.
Dodd, Jas .....710 Ocean ave.
Doran, Jas .....531 Newark ave.
Ernst, J. Walter .....204 Sea View ave.
Ewald, F .....355 Railroad ave.
Farrier, W. W. Co .....44 Montgomery st.
Fleckin, D .....105 Beacon st.
Ford, Wm. R .....426 Jackson st.
Heatherington Bros .....671 Ocean ave.
Heatherton, Thos. F .....204 4th st.
Jackson, Wm. B .....618 Ocean ave.
Joanes, Jas. A .....741 Grand st.
Kelaher, Fergus T .....770 Bergen ave.
Knoll & Knoll .....503 Palisade ave.
Kuntz, Jos. C. .....438 Grove st.
Malone, Matthew P. .....298 Henderson st.
Maloney, T. M .....4 Cole st.
McElwain, Jas. J .....92 Cole st.
McGuicker, A. H .....376 Jackson st.
Meehrn, Jas. P .....271 Washington st.
Moran, M. P .....198 12th st.
Newman, F. W .....108 Sutton st.
O'Brien & Kielt .....253 Washington st.
Pentland, John M .....31 Bleecker st.
Renker Bros., ...123 Danforth ave.
Senger, Herman, Jr .....458 Ocean st.
Sharrock, John J .....272 Varick st.
Sherry, Frank .....315 Second st.
Sproules, Jos .....339 Montgomery st.
Stone, Wm. H .....398 West Side ave.
Stoveken, H. F .....121½ Monticello ave.
Tresonthick, Jas .....589 Summit st.
Waltherthum, N .....157 Hopkins ave.
Werner Bros. .....1147 Summit ave.
Worden & Cranford .....805 West Side ave.

KEARNEY.

(See West Hudson Ass'n.)

LONG BRANCH

President, Jos. A. Burns .....184 Broadway
Secretary, Geo. H. Northam .....203 Broadway
Adamson, R. C., Jr .....14 Liberty st.
Barham, James & Co .....33 2d ave.
Barham, Thos. B .....West End
Bazley & Burns .....184 Broadway
Burns, M. C .....39 5th ave.
Curr, Wm. & C .....98 Broadway
Detlinger & Quirk .....Elberon
Hines & Hammer .....102 5th ave.
Northam & Throckmorton .....203 Broadway
Rudolph, Chas .....Elberon
Thompson, Wm. .....West End
Warwick, W. R .....262 Broadway
Wortman, Harry .....7 3rd ave.

MADISON.

(See Morristown.)

METUCHEN.

(See Perth Amboy.)

MILLVILLE.

President, Howard Gray.
Secretary, Lewis Barnett.
Barnett, Lewis.
Brandriff, Alfred, Jr.
Brandriff, Portius.
Bullock, Frank M., Jr.
Ferraris, Jno. W.
Gray, Howard.

MONTCLAIR—BLOOMFIELD ASS'N.

President, Fred Fass.....15 Midland ave., Montclair
Secretary, B. T. Garrabrant .....Upper Montclair
Ackerman, E. O.,
316 Greenwood ave., Bloomfield, N. J.
Arthur & Stanford,
449 Bloomfield ave., Bloomfield, N. J.
Cogan, Thos. H., 577 Bloomfield ave., Bloomfield N. J.
Crane, I. Seymour ....416 Bloomfield ave., Montclair
Daly & Zeim.....5 Watsessing ave., Bloomfield, N. J.
Durr, Jos. A .....Upper Montclair
President, Fred Fass .....15 Midland ave. Montclair
Fentzlaff, Carl .....423 Bloomfield ave., Montclair
Garrabrant, Bayard T .....Upper Montclair
Gray, J. F .....32 Valley Road, Montclair
Griffith, E. B. & J. E., Co.,
24 Osborne st., Bloomfield, N. J.
Hays & Kierstead .....Upper Montclair
McGregor, Alex ..... 10 Valley Road, Montclair
Morsh, Ernest A.,
611 Bloomfield ave., Bloomfield, N. J.
O'Brien, F .....37 Willow st., Bloomfield, N. J.
Peterson, Chas. N .....108 Walnut st., Montclair
Southward, S. M .....14 Spring st., Montclair
Sigler's Son, A. A .....Upper Montclair
Taylor, John H. & Bro., 219 Glenridge ave, Montclair

MORRISTOWN—MADISON.

President, Walter V. Mesler .....Morristown
Secretary, Willis C. Drake .....Morristown
Allen, George A .....Madison
Banist, David .....Morristown
Bryan, Wm. G .....Morristown
Carroll, J. J .....Morristown
Dacey, Patrick G .....Morristown
Flusch, J. O .....Madison
Kay, Wm. J .....Morristown
Looney, W. J .....Morristown
Meslee, Co., W. H .....Morristown
Oliver Drake Co .....Morristown
Ryan, James J .....Madison
Salkind, H. M .....Morristown
Tompkins, L. B. .....Morristown
Tompkins & Welsh .....Morristown
Would Brothers .....Madison

BOARDWALK ROLLING-CHAIR PARADE ATLANTIC CITY N. J.

LIGHTHOUSE, ATLANTIC CITY, N. J.

NEWARK

President, Samuel F. Wilson .....474 Clinton ave.
Recording Secretary, H. F. Baillet ..191 Clinton ave.
Axelrad, J .....151 South Orange ave.
Bauderman, M. T. Jr.
Bauman, C. V.....43 William st.
Baumann, Geo. & Son.....582 Hunterdon st
Berla Bros.....224 Washington st.
Berla, Elias.....76 Mulberry st.
Berla, M.....74 Bank St.
Bleything, E. A.....107 Roseville ave.
Boerger, Ernst.....Irvington, N. J.
Bond, C. E.....357 Washington st.
Bopp, Jno., & Buehler.....384 S. 20th st.
Bormann J. H.....16 Avon ave.
Brady & Schall.....8 Stone st.
Brenner, P. H.....56 Franklin st.
Brody, Bernard.....168 Broome st.
Budd, Ira.....297 S. Orange ave.
Callan P. .....94 Plane st.
Champlin, C. B., & Bro.....71 Central ave.
Collier & Mooney.....19 Wright st.
Crawley, Geo. M.....498 Broad st.
Cunningham & Stinton.....Niagara and Berlin sts.
Degnan, Peter .....177½ Central ave.
Demars, Wm .....57 Mechanic st.
De Vausney, Jacob, & Son.....512 Orange st.
Dombrosky, E., & Bro.....307 Ferry st.
Drummond, Wm. H., Co.....60 Lafayette st.
Dunn, W. P., Co.....42 Mechanic st.
Ebert, W .....Vailsberg, N. J
Ellermann, J.....420 S. 10th st.
Engelberger, F. & W. V. Co .....157 Jelliff ave.
Frost, S.....568 Orange st.
Fuerst, Frank.....722 Bergen st.
Gareis, John.....502 Springfield ave.
Geiser, Theo., & Sons.....248 Plane st.
Gerber, Jno.....660 Springfield ave.
German, Peter.....26 Sayre st.
Gill, J. B., & Co.....319 Warren st.
Groel, Henry F.....71 Somerset st.
Grohman & McDonald.....286 N. 5th st.
Groves, E. L., Mrs.....395 Mulberry st.
Hanley, J. F., & Co.....224 Ferry st.
Harris, C. W. P.....407 Warren st.
Harrison & Walker.....341 Main st., East Orange
Haselmeyer, F. A.....10 West st
Hemphill, R.....11 S. 6th st.
Hicks, Jno.....Clinton ave. & 18th st.
Hoffmann, E.....177½ S. Orange ave.
Hoffman, Fred, Bros.....52 Bowery st.
Holliday, A. E., Co.....415 Halsey
Hough, C. S .....86 Court st.
Hough J. F.....105 Washington st.
Howarth Bros. Co.....62 N. J. R. R. ave.
Jacobi, Wm.....100 New st.
Jacobus, Wm.....30 Wright st.
Jachnig & Peoples.....221 13th st.
Kay, Grant.....36 New st.
Kehoe & Metz.....346 Mulberry st.
Keller, J. & P., Jr.....65 Mercer st.
Kelley, Thos. F.....19 Parkhurst st.
Kern, E. J.....161 13th ave.
Kiesewetter, Edwin.....179 Clinton ave.
Klein, Chas. J.....33 Montgomery st.
Koether, Rudolph A.....17 Court st.
Kolb, Chas.....14 Mercer st.
Laemann Bros.....198 Ferry st.
Laible, Jacob, & Son.....56 S. Orange ave.
Lawson L. W.....78 Commerce st.
Leonard, E. B.....14 Lombardy st.
Lutz, Elmer.....87 New st.
Lynn, Hugh.....99 Belleville ave.
Maier Bros.....41 Bloomfield ave.
Marshall, W. C.....851 Mt. Prospect ave.
McGuire, Chas. F.....313 Halsey st.
McGuire, J. C.....327 Plane st.
Meeks, C. S.....63 Penn ave.
Merkel, F.....533 Central ave.
Mersfelder Bros.....259 Halsey st.
Mills & Zeim.....5 Watsessing ave., Bloomfield
O'Connell & Hilser.....240 18th ave.
O'Crowley, R. J.....12 Bridge st.
O'Brien, M.....37 Oxford st.
Osbahr, Theo. H.
Perry, Geo F.....151 Washington st.
Quant, Herman .....111½ 15th ave.
Rau, Jacob, Jr.....43 West Kinney st.
Rittersbacher, J.....36 S. Orange ave.
Robson, Fred.....6 Van Wagenen st.
Rowe, Alfred H .....48 Hartford st.
Sanders, Chas.....121 S. 12th st.
Sandford, Thos.....349 Broad st.
Schachat, J.....30 Hillside pl.
Schmander & Wolff.....56 Belmont ave.
Schmidt, Ralph B.....62 Ann st.
Schroeder & Elbrecht Co.....60 Belmont ave.
Schwartzwaelder, Geo.....482 Springfield ave.
Simpson, A. J.....221 Clinton ave.
Soleau, E. R.....72 Halsey st.
Spatcher, Wm.....121 Union st.
Specht, Jno.
Stadelhofer, Max.....332 Orange st.
Staehle & Co.....287 Belmont ave.
Steiner, E. E.....50 Ferry st.
Sternhopf, E., Jr.....45 Pacific st.
Stickel, Geo.....101 Union st.
Storms, John G.....30 Pionier st.
Storms & Co.....112 S. 14th st.
Strebinger, Chas .....410 Morris ave.
Streuning, A.....427 6th st.
Sturn, F. J.....900 Broad st.
Suteliffe, J.....52 William st.
Thrush & McMillan.....108½ Roseville ave.
Turtletaub & Co.....302 Morris ave.
Umbenhauer, Wm.....155 Polk st.
Van Ness, H. E.....Irvington, N. J.
Virtue, Wm.....59 Pennsylvania ave.
Weitlauf, Fred'k.....84 Brunswick st.
Wison, S. F.....476 Clinton ave.
Wolf, W. D., & Co.....586 Orange ave.
Woodside Plumbing and Heating Co.,
188 Washington ave.
Wuner, E.....312 Elm st.
Zeitler, Robert, & Son .....266 Halsey st.
Zeliff, W. W.....350 Belleville ave.
Zimmermann Heating and Plumbing Co.,
291 Market st.
Zipf, Frederick.....110 Ferry ave.
Zitzner, J. P.....21 Magnolia st.

NORTH BERGEN.

(See North Hudson Ass'n.)

CITY HALL, JERSEY CITY, N. J.

HUDSON COUNTY BANK, JERSEY CITY
PEOPLE'S SAVINGS BANK, JERSEY CITY

NORTH HUDSON ASS'N.

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Recording Secretary, C. C. Hoffmeier,
612 Spring St., West Hoboken.

Barrett Bros.....West Hoboken.
Barrett, Geo.....Herman ave., Guttenburg
Beek Plumbing & Heating Co.....
644 Bergenline ave., West New York
Borg & Perrego.....Liberty st., Town of Union
Boylan, John.....Spring st., West Hoboken
Cade, Percy J.....420 Hudson ave., Guttenburg
Feirer, Mr. .....Hight Point ave., West Hoboken
Feiszt, Alfred.....405 Spring st., West Hoboken
Giess, Philip.....Dodd st., West Hoboken
Gilmore.....314 Fulton st., Union Hill
Hamlin & Guttjahn.....North Bergen
Handley, Aug.....510 Peterson ave., West Hoboken
Heim, John.....Union st., West Hoboken
Hoffmeyer, C. C.....612 Spring st., West Hoboken
Holtje Bros .....231 Bergenline ave., Town of Union
Knack, A., & Son.....Union st., Town of Union
Lindner, Joseph.....Polk st., West New York
Menagaux, L. A., & Co...422 Lewis st., Town of Union
Merkens, Henry.....
215 Hackensack Plank Road, Weehawken
Mohr Bros.....470 Spring st., West Hoboken
Partligton, Fred Broadway, near 4th st., Town of Union
Riemenschneider Bros..511 Gardner st., Town of Union
Schoehe, H. L.....516 Fulton st., Town of Union
Seitz, Erwin.....Jefferson pl., West Hoboken
Steinhoff & Babcock..15 Bergenline ave., Town of Union
Stellar, Chas.....306 Main st., Town of Union
Sorg, Fred.....West New York
Thourot, E. C. & Co .. ..
.....423 New York ave., Town of Union
Wendland & Co .....180 Summit ave., West Hoboken
Yhelen, G .....West New York
Ziegler, Wm .....Clinton ave., West Hoboken

OCEAN CITY AND VICINITY.

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Secretary, J. R. Groves .....Ocean City
Allaway, Smith & Co .....Ocean City
Conver, S. B .....Ocean City
Groves, John R .....Ocean City
Rice, A. R., & Co .....Sea Isle City, N. J.

OCEAN GROVE.

(See Asbury Park and Vicinity Ass'n.)

THE ORANGES.

President, John W. Mooney ..324 Main st., E. Orange
Secretary, E. Garrabrant .....19 Stetson st, Orange

Orange.

Allen, Wm. A .....489 Main st.
Beck, Wm. F .....21 William st.
Butterfield, L. W.....16 Cone st.
Cahill Bros .....62 Main st.
Chalmers Bros .....255 Main st.
Condit, R. W .....109 William st.
Dumm, August E .....75 Essex ave.
Drake Bros.
English, John J .....30 Valley st.
Finneran & Merrigan .....95 Valley st.
Garrabrant, C. & Son .....19 Stetson st.
Gibons & Clark .....24 N. Centre st.
Hindle & Williams Co .....295 Main st.
Hoffman, Adolph .....40 McChesney st.
Kennedy, Jas. A .....McChesney and Church sts.
Koeck, Louis .....McChesney st.
Miller, F. C .....14 Park st.
Milne & Platt .....143 Main st.
Schieman & Sullivan .....482 Main st.
Shipman, C. L .....248 S. Jefferson st.
Snow, John W .....Main st.
Sylvester & Hickson .....499 Main st.
Wardell, W. S .....25 Waverly pl.
Werner, Geo. H .....16 Day st.
Williams, O. S .....249 Washington st.

East Orange.

Beel, W. J. P .....37 Crawford st.
Black, J. S., & Son .....110 Main st.
Cahill & Mills .....10 Washington pl.
Harrison & Walker .....341 Main st.
Johnson, G. A .....200 Sanford st.
Kellogg, N. S .....341 Main st.
Lang, George .....446 Main st.
Lang, The Francis Co .....378 Main st.
Matherney, A. S .....256 Prospect st.
Miller, F. W .....19 Prospect st.
Mills & Brown .....146 Main st.
Mooney Bros .....324 Main st.
Nelson, Jas. B .....34 Prospect pl.
Prentice & Bremner .....362 N. Clinton st.
Redfield, O. L .....11 Railroad ave.
Smith, Frank .....Marcy ave.
Stasse & Co .....514 Main st.
Thorpe, J. A .....Park ave. and 14th st.

West Orange.

Baaden, C. H .....20 High st.
Bauer Bros .....45 Freeman st.
Cahill Bros.
Dumm, Jno. .....304 Valley Road
McGarrick, Frank P .....11 Ashland ave.
Mooney, Jas. A.
O'Connor, F. A .....327 Valley rd.
Willis & Collinson .....Harrison ave. and Maple st.

South Orange.

Hoffman, H. W .....40 Cottage ave.
Hughes, E., & Son .....58 S. Orange ave.
Kitchell, J. L .....32 S. Orange ave.
Mills & Yeager .....56 S. Orange ave.
Newman, Wm. B .....S. Orange ave.
Smith, J. Budd .....10 S. Orange ave.
Versey, G. E .....158 Valley st.

ORADALE.

(See Hackensack and Vicinity Ass'n.)

PASSAIC.

President, Ernest Remig .....245 Passaic st.
Secretary, R. W. Burrell .....47 Garden st.
Aldous Plumbing & Heating Co ....44 Bloomfield ave.
Boon Plumbing & Heating Co.
Brooks, William .....Van Buren st.
Burrell, R. W .....Main ave.
Collins, John .....Main and Howe aves.
Falstrom & Tornqvist Co .....Monroe st.
Fisher & V. D. Horn .....Columbia ave.
Hahn, Geo .....Main ave.
Halstead, Jno. D .....167 Prospect st.
Karl Bros. .....Passaic st.
Kevitt, F .....9th st.
Lichtenberg, Rudolph.
Lichtenberg B .....168 3rd. st.

Patak, A .....3rd st.
Pontier, Jacob .....Passaic st.
Remig & Geiger .....245 Passaic st.
Schleich, John G .....Elm st.
Taylor, A. M., Co.
Thompson, Frank .....Hobart Bank Bldg.
Tornqvist & Co .....Ann st.
Wall Bros. .....Quincy st.
Wentink, Nicholas .....16 Hobart st.
Wright, Paul .....Bergen County, Wallington, N. J.

PATERSON.

President, Jas. H. White .....218 Clay st.
Secretary, Robert E. Quinn .....9 Fair st.
Baird, John Co .....79 Mill st.
Baker, John .....17 Watson st.
Beaumont & Sons .....53 Market st.
Barrowclough Bros .....446 E. 18th st.
Berdan, Garret .....67 Holsman st.
Bulmer, Jas., & Son .....131 E. 20th st.
Cadigan, F., & Son .....639 Main st.
Campbell, John .....26 Lake st.
Carshore, W. J .....8 Prince st.
Collins, Alfred C .....365 Clay st.
Collins, John .....662 River st.
Cooper, Thos. S .....53 Chestnut st.
Cox, James T .....240 Graham ave.
Cundell & Co .....94 Washington st.
Davenport, Jas .....324 Totowa ave.
Delhagen, Wm. .....53 Ward st.
Fielding, A. J .....6 Hamburg ave.
Florence, Geo. W .....128 Straight st.
Fritz, Adam .....39 Paterson st.
Gardenier, H., & Son .....244 Water st.
Gillen Bros. .....99 West 27th st.
Gravitt, H .....727 E. 24th st.
Greenwood, S .....Park ave. and E. 22nd st.
Greiman, Meyer .....24 Arch st.
Grinker, G .....12 Lane st.
Gysbers, John W .....282 Governor st.
Harring, Chas .....272 Straight st.
Johnson, David R .....388 Totowa ave.
Kasse, Chas. A .....83 Jefferson st.
Kearney, James & Sons .....443 Main st.
Keyes, Wm .....31 Pearl st.
Leitch, Chas .....222 Paterson st.
Lendrim, H. C., Co .....82 Clay st.
Maher Bros. .....190 Slater st.
Marcy & Co .....Clifton, N. J.
Metz, Peter .....31 Cross st.
McBride, Frank A. .....322 Grand st.
McBride, John T .....165 Marshall st.
McGinnis, David L .....2 Chadwick st.
McKeon, Wm .....47 N. Main st.
McNab, Jas. T .....94 Prospect st.
McNeil, Lawrence .....427 Grand st.
Neal, George H .....23 Albion ave.
Neal, Joseph .....372 Clay st.
O'Neil, George S .....11 Bridge st.
Quinn Bros .....9 Fair st.
Rear, Chas .....44 Clinton st.
Rear, George, & Sons .....112 N. 1st st.
Robertson, Robert W .....191 Mill st.
Roegiers, B. J., Co .....40 Church st.
Rogers, A. J., Co .....90 Broadway
Samelsberger, Jos. A .....43 Park ave.
Schneider, H. A .....90 Main st.
Sikkellee, Wm.
Seibel, Chas. P .....160 River st.
Stagg, Albert E .....146 N. 5th st.
Storms, Isaac A .....96 N. Main st.
Thompson, Wm .....Belmont ave. and N. 7th st.
Van Valkenburg, Geo .....11 Hamburg ave.
Van Valkenburgh, Jas .....164 Belmont ave.
Vermulen, John .....47 Holsman st.
Vreeland, Frank .....68 Bridge st.
Walls, Charles .....51 Marshall st.
Westervelt, C. E .....563 E. 26th st.
White, James H .....218 Clay st.
Whritenour, George P .....20 Hamburg ave.

PERTH AMBOY.

President, E. M. Kelly .....74 Smith st.
Secretary, F. L. Boyd .....Perth Amboy
Bennet, W. A .....Metuchen
Burns, Jas. F., & Son..177 Washington st., Perth Amboy
Calvin, R. J .....State st., Perth Amboy
Edgar, Frank P .....Woodbridge
Hanson, J. S ...54 New Brunswick ave., Perth Amboy
Humphries, Robert .....Woodbridge
James, Newell V .....South Amboy
Kelly & Linden .....74 Smith st., Perth Amboy
Larkins, Frank J .....Perth Amboy
Miller, W. A .....Perth Amboy
Monaghan, P. J .....Perth Amboy
Sanitary Plumbing and Contracting Co.....
.....5 King st., Perth Amboy
Smith, R. B ....55 New Brunswick ave., Perth Amboy
Sullivan, Philip .....South Amboy
Tausig, Chas .....Metuchen
Zangenberg, T. E .....Perth Amboy

PLEASANTVILLE.

President, Mark Sanders.
Secretary, Christian R. Clegg.
Boise, Harry B.
Clegg, Christian R.
Large, Chris.
Sanders, Mark.

RIDGEFIELD.

(See Englewood and Vicinity Ass'n.)

RIDGEWOOD.

President, Wm. P. Morgan.
Secretary, Jos. M. Duffy.
Banta, Owens, Plumbing Co.
Christopher, Jos. H.
Duffey, Jos. M.
Moore, W. H.
Morgan, C. P.
Morgan, Wm. P.

RIDGEFIELD PARK.

(See Hackensack and Vicinity Ass'n.)

RIVER EDGE.

(See Hackensack Ass'n.

RUTHERFORD AND VICINITY ASS'N.

President, S. C. Tallman .....Rutherford
Secretary, Wm. J. Clark, Jr. .....Rutherford
Clark & DeGroot .....Rutherford
Clay, Arthur A .....Rutherford
Evans, Geo .....Rutherford
Grady, John .....East Rutherford
Hertmenck, Fred .....Hasbrook Heights

Lang, Christ .....East Rutherford
Martin, Wm. J .....Hasbrook Heights
Mitchell, A .....Rutherford
Tallman, S. C. .....Rutherford

SEA ISLE CITY.
(See Ocean City Ass'n.)

SOUTH AMBOY.
(See Perth Amboy.)

SUMMIT.
President, Jos. O. Chrystal.
Secretary-Treasurer, Timothy J. Scott.
Croot, John R.
Chrystal, Joseph O.
Mooney, Robert J.
Scott, Timothy J.
Thomson, Alex.
Kloeksin, Henry.

TENAFLY.
(See Englewood and Vicinity Ass'n.)

TRENTON.
President, A. V. Openshaw .....849 S. Broad st.
Cor. Secretary, Chas W. Whitehead ....972 E. State st.
Black, John .....Richey bldg.
Bond, Wm. A .....307 Hudson st.
Boyd, Wm. A .....320 S. Clinton ave.
Carpenter, Edw. H .....360 S. Broad st.
Cody, Wm. F .....516 S. Clinton st.
Cocker, Wm. .....15 Walnut st.
Dickson, Wm. .....351 Perry st.
Dobbins, W. C .....156 S. Broad st.
Dowling, John A .....9 N. Warren st.
Grenier, Harry .....262 N. Clinton ave.
Hill, Wm .....451 Central st.
Holt, Chas .....E. Front st.
Johnston, Geo. F .....127 Lamberton st.
Kimble, Chas., & Son .....209 N. Broad st.
Kafer, Geo. W .....120 W. Front st.
Margerum, Walter .....43 Market st.
McGrory, Robert .....316 W. Hanover st.
Murphy, Chas. E .....929 S. Clinton ave.
Nightingale, Robert .....317 E. State st.
Openshaw, A. V .....849 S. Broad st.
Schermerhorn, A .....9 E. Front st.
Slack Bros .....340 N. Broad st.
Spencer, Robert .....206 S. Warren st.
Stilwell, Chas. .....471 Centre st.
Whitehead, Chas. W .....972 E. State st.

TOWN OF UNION.
(See North Hudson Ass'n.)

UPPER MONTCLAIR.
(See Montclair-Bloomfield Ass'n.)

VAILSBERG.
(See Newark.)

WALLINGTON.
(See Passaic Ass'n.)

WEEHAWKEN.
(See North Hudson Ass'n.)

WEST HOBOKEN.
(See North Hudson Ass'n.

WEST HUDSON ASS'N.
President, Robert Marshall .....442 John st., E. Newark
Rec. Secretary, Chas. Metzger ..491 Elm st., Arlington
Bawerbank, Wm .....Harrison
Bornemann, A. O .....Arlington
Broedel & Metzger .....Arlington
Burns, J., & Bro. .....Kearney
Dancoke & Scheiman .....Arlington
Hafstroem, Chas. .....Kearney
Hartmann, W. E .....Kearney
Lester, James .....Kearney
Lynch, John T .....Harrison
Marshall, S. J .....East Newark
McArthur, A .....Kearney
Nagel, J. J. .....Kearney
Pratt, J. & Co .....Kearney
Riordan, S. F .....Harrison
Wallwark, Jas .....Kearney

WEST NEW YORK.
(See North Hudson Ass'n.)

WESTWOOD.
(See Hackensack and Vicinity Ass'n.

WILDWOOD.
(See Five Mile Beach Ass'n.)

WOODBRIDGE.
(See Perth Amboy.)

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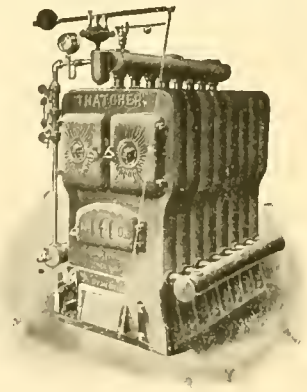

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State Department

Secretary of state, Samuel D. Dickinson; assistant secretary, J. B. R. Smith.

Treasury Department

State treasurer, Frank O. Briggs; state comptroller, J. Willard Morgan; state auditor William E. Drake; chief clerk, treasury department, L. Kensil Wildrick; deputy comptroller, Isaac Doughten.

Law Department

Attorney-general, Robert H. McCarter; assistant attorney-general, Edward D. Duffield.

The Judiciary

Court of Errors and Appeals: The Chancellor, the chief justice and justices of the Supreme Court; judges, John W. Bogert, William H. Vredenburg, James B. Dill, Gar-D. W. Vroom, George R. Gray, Elmer Ewing Green; clerk, secretary of state.

Court of Chancery: Chancellor, William J. Magie; vice-chancellors, Henry C. Pitney, John R. Emery, Lindley M. Garrison, Frederic W. Stevens, Martin P. Grey, Eugene Stevenson, James J. Bergen.

Vice-ordinary and vice-surrogate-general, James J. Bergen.

Clerk in chancery, Vivian M. Lewis; deputy clerk in chancery, E. M. Applegate; chancery reporter, Carroll Robbins.

Supreme Court: Chief justice, William S. Gummere; associate justices, Alfred Reed, Jonathan Dixon, Charles G. Garrison, John Franklin Fort, Abram Q. Garretson, Charles E. Hendrikson, Mahlon Pitney, Francis J. Swayze. Clerk of the Supreme Court, William Riker, Jr.; deputy clerk, Charles N. Codding; law reporter, Garret D. W. Vroom.

Circuit Court judges: Frederic Adams, Charles W. Parker, Allan B. Endicott, Wilbur A. Heisley.

Court of Pardons: Governor, Chancellor and lay judges of the Court of Errors and Appeals; clerk, secretary of state.

District Court judges: Camden, Martin V. Bergen; Elizabeth, Edward S. Atwater; Jersey City, James S. Erwin, Charles L. Carrick; Newark, Thomas L. Raymond, Thomas J. Lintott; Paterson, William I. Lewis; Trenton, George W. McPherson; Orange Charles B. Storrs; Hoboken, Frederick Frambach, Jr.; Passaic, William W. Watson; Atlantic City, Robert H. Ingersoll; Bayonne, Horace Robersson; New Brunswick, Edward W. Hicks; Perth Amboy, Adrian Lyon.

Military System

Commander-in-chief, Hon. Edward C. Stokes, governor; Adjutant-General, Brig.-Gen. R. Heber Breintnall; Quarter-master-General, Brig.-Gen. Charles Edward Murray; Surgeon-general, Brig.-Gen. John D. McGill; Inspector-general, Brig.-Gen. Joseph W. Congdon; Inspector-General of Rifle Practice, Brig.-Gen. Bird W. Spencer; Judge Advocate-General, Brig.-Gen. Edwad P. Meany.

The commanding officers of the National Guard and Naval Reserve are: Division, Maj.-Gen. P. Farmer Wanser; First Brigade, Brig.-Gen. Edward A. Campbell; Second Brigade, Brig.-Gen. Quincy O'M. Gillmore; First Regiment, Infantry, Col. Henry W. Freeman, Headquarters, Newark, N. J.; Second Regiment, Infantry, Col. Dennis F. Collins, Trenton, N. J.; Third Regiment Infantry, Col. John A. Mather, Camden, N. J.; Fourth Regiment, Infantry, Col. Joseph H. Brensinger, Jersey City, N J.; Fifth Regiment Infantry, Col. Edwin W. Hine, Paterson, N. J.; First Troop, Cavalry, Capt. William A. Bryant, Newark, N. J.; Second Troop, Cavalry, Capt. Edwin Field, Red Bank, N. J.; Battery A, Field Artillery, Capt. Oscar H. Condit, East Orange, N. J.; Battery B, Field Artillery, Capt. Samuel G. Barnard, Camden, N. J.; Signal and Telegraph Corps, Capt. Wm. C. Sherwood, Jersey City, N. J.; First Battalion,

HUDSON TRUST CO. BANK, WEST HOBOKEN, N. J

CARNEGIE LIBRARY BUILDING, UNION HILL, N. J.

Naval Reserve, Com. Edward McClure Peters, Hoboken, N. J.; Second Battalion, Naval Reserve, Com. Albert De Unger, Camden, N. J.

Educational Department

Trustees of the School Fund. Governor, secretary of state, president of the senate, speaker of the assembly, attorney-general, state comptroller and state treasurer.

State Board of Education. Edward E. Grossenp, Wenonah; George A. Frey, Camden; James B. Woodward, Bordentown; Silas R. Morse, Atlantic City; W. Edwin Florance, New Brunswick; Edmund Wilson, Red Bank, Samuel St. John McCutchen, North Plainfield; Percival Chrystie, High Bridge; Benjamin H. Campbell, Elizabeth; Charles E. Surdam, Morristown; Sweeting Miles, Alpine; Fraancis Scott, Paterson; Edward G. Robertson, Newark; Everett Colby, West Orange; James L. Hays, Newark; T. O'Connor Sloan, South Orange; Clamor Allen, Jersey City; William R. Barricklo, Jersey City; Edward Russ, Hoboken; William D. Forbes, Hoboken; president, James L. Hays; vice-president, George A. Frey; secretary, Charles J. Baxter.

State Normal and Model Schools. James H. Green, principal, Ph.D.; steward, John S. Neary.

Principal New Jersey School for Deaf Mutes, John P. Walker; steward, Thomas F. Hearnen.

Public Instruction

State superintendent, Charles J. Baxter. Assistant state superintendent, J. Brognard Betts.

County Superintendents

County.	*Names*	*P. O. Addresses*
Atlantic	Hon. S. D. Hoffman	Atlantic City
Bergen	B. C. Wooster	Hackensack
Burlington	Herman A. Stees	Beverly
Camden	C. S. Albertson	Magnolia
Cape May	Aaron W. Hand	Cape May City
Cumberland	John N. Glaspell	Bridgeton
Essex	A. B. Meredith	Nutley
Gloucester	William Eldridge	Williamstown
Hudson	M. H. Kinsley	Hoboken
Hunterdon	Jason S. Hoffman	Flemington
Mercer	Joseph M. Arnold	Princeton
Middlesex	H. Brewster Willis	New Brunswick
Monmouth	John Enright	Freehold
Morris	W. B. Matthews	Dover
Ocean	Peter Tilton	Toms River
Passaic	Homer A. Wilcox	Passaic
Salem	J. A. Wentzell	Elmer
Somerset	H. C. Krebs	North Plainfield
Sussex	Ralph Decker	Sussex
Union	W. J. Shearer	Elizabeth
Warren	Franklin T. Atwood	Hackettstown

City Superintendents

Asbury Park	Fred. S. Shepherd
Atlantic City	C. B. Boyer
Bayonne	J. H. Christie
Bloomfield	George Morris
Bordentown	Wm. Macfarland
Bridgeton	E. J. Hitchner
Burlington	Wilbur Watts (Sup't.-Prin.)
Camden	James E. Bryan
Dover	J. H. Hulsart
East Orange	Vernon L. Davey
Elizabeth	W. J. Shearer
Englewood	Elmer C. Sherman
Gloucester	William C. Sullivan
Hoboken	A. J. Demarest
Jersey City	Henry Snider
Lambertville	A. P. Kerr
Long Branch	C. Gregory
Millville	S. C. Smith
Montclair	Randall Spaulding
Morristown	W. L. R. Haven
Newark	Dr. A. B. Poland
New Brunswick	W. C. Armstrong
Orange	W. H. Swingle
Passaic	O. I. Woodley
Paterson	W. E. Chancellor
Perth Amboy	S. E. Shull
Phillipsburg	H. Budd Howell
Plainfield	Henry M. Maxson
Rahway	Edwin C. Broome
Salem	M. H. Stratton
Town of Union	Otto Ortel
Trenton	E. Mackey
West Hoboken	Robert Waters

State Library

Commissioners: Governor, chancellor, chief justice, attorney-general, secretary of state, treasurer and comptroller. State Librarian: Henry C. Buchanan. Public Library Commissioners: William C. Kimball, Passaic, chairman; Dr. Ernest C. Richardson, Princeton University; Moses Taylor Pyne, Princeton; Everett T. Tomlinson, Elizabeth; Howard M. Cooper, Camden; Henry C. Buchanan, secretary, Trenton.

State House Commission

The governor, state treasurer and state comptroller.

Custodian of the state house and public grounds, John W. Weseman; assistant, William H. Meseroll.

THE FOOT OF ASBURY AVENUE. ASBURY PARK, N. J.

THE BUCKINGHAM AND SOLDIERS' MONUMENT. ASBURY PARK. N. J.

Riparian Board

Commissioners: The governor, president; John R. Reynolds, Trenton; Robert Williams, Paterson; William Cloke, Trenton; M. F. McLaughlin, Newark; secretary and engineer, John C. Payne, Jersey City.

State Board of Assessors

Members, David Baird, president, Camden; Stephen J. Meeker, Newark; Theodore Strong, New Brunswick; Eckard P. Budd, Mount Holly; Irvine E. Maguire, secretary.

State Board of Equalization of Taxes

Members: Carl Lentz, president, Newark; Charles C. Black, Jersey City; Henry J. Irick, Vincentown; Theodore Siminson, Newton; E. Ambler Armstrong, Camden; Frederick R. Lehlbach, secretary, Trenton.

The Commissioners to investigate the Whole Subject of Franchises Granted by Municipalities to Public Utility Corporations in their Relations to such Municipalities and to the State—

Members: Ex-Governor Foster M. Voorhees, Elizabeth; ex-Governor Franklin Murphy, Newark; Frank T. Lloyd, Camden, Eckard P. Budd, Burlington; John C. Payne, Jersey City.

Banking and Insurance

Commissioner, David O. Watkins. Deputy commissioner, Thomas K. Johnston.

Public Roads

State commissioner, Elijah C. Hutchinson, Trenton; state supervisor of public roads, Robert A. Meeker, Plainfield.

Bureau of Labor Statistics

Chief, Winton C. Garrison; deputy, James T. Morgan.

Department of Labor

Commissioner of labor, Lewis T. Bryant; assistant commissioner of labor, John I. Holt, Trenton.

Inspectors under the commissioner of labor: William H. Dod, Hoboken; Heber Wells, Paterson; Joseph Milburn, Trenton; Henry Kuehnle, Egg Harbor City; Edward E. McClintock, Newark; William Schlachter, Orange; Andrew McCardell, Plainfield; James E. Stanton, Sussex; Louis Holler, Camden; Mary F. Van Leer, Camden; Grace L. De Hart, Jersey City.

State Board of Arbitration

Members: William B. Garrabrants, Newark; Harry H. Banker, New Brunswick; Thomas H. Joiner, Camden; Samuel Berry, Millville; vacancy.

State Prison

Head keeper, George O. Osborn.

Supervisor, Edward J. Anderson.

Inspectors: William H. Carter, Bordentown; William A. Berry, Belmar; I. E. Mitchell, Millville; Jacob Shurts, Somerville; Bernard Feeney, Paterson; James H. Davenport, Newark.

New Jersey Reformatory

Board of Commissioners: The Governor of the State, ex-officio; George A. Squire, president, Morristown; Decatur M. Sawyer, Montclair; Percy R. Pyne, Bernardsville; Richard H. Wilson, Metuchen; George W. Fortmeyer, East Orange; Bruce S. Keator, Asbury Park; Freeman Woodbridge, New Brunswick; Richard H. Wilson, secretary; Joseph W. Martin, superintendent.

State Home for Boys

Board of Trustees: Edward Spaeth, president; Newark; Frank M. Donohue, New Brunswick; Frederick M. Lockwood, Jersey City, treasurer; John Guire, Long Branch; Gervas Ely, Lambertville; Frank S. Gaskill, New Egypt; John G. Kalleen, superintendent.

State Home for Girls

Trustees: John D. Rue, Trenton; Alfred D. Carnagy, Trenton; Thos. B. Holmes, Trenton; Mrs. Frederick Johnson, Newark; Thomas P. Fay, Long Branch; Magna De Hart, Jersey City; Margaret H. Sickels, Trenton; Joanna Hartshorn, Short Hills; one vacancy.

PRUDENTIAL BUILDING, NEWARK, N. J.

POST OFFICE, NEWARK, N. J.

State Home for Disabled Soldiers

Managers: Col. Edward H. Wright, Newark; Amzi Dodd, Newark; Marcus L. Ward, Newark; James E. Fleming, Newark; Gen. E. Burd Grubb, Edgewater Park; R. Heber Breintinall. Officers: Maj. Peter F. Rogers, superintendent; Bishop W. Mains, adjutant; Rev. John D. Ferguson, chaplain; Mrs. Peter F. Rogers, matron.

State Home for Disabled Soldiers, Sailors, Marines and Their Wives

Board of Managers: Gilbert D. Bogert, Passaic; Amos R. Dease, Camden; Ernest C. Stahl, Trenton; John Shields, Flemington; commandant, Jarvis Wanser; adjutant, James B. Clinton.

State Board of Health

Members: Cyrus T. Brackett, president, Princeton; Laban Dennis, Newark; William H. Murray, Plainfield; Henry B. Rue, Hoboken; Geo. P. Olcott; Orange; Henry Mitchell, Asbury Park; Henry W. Elmer, Bridgeton. The secretary of state, the attorney-general and the state geologist ex-officio. Secretary Henry Mitchell, Asbury Park; assistant secretary, Clark Hunt, Metuchen.

Director State laboratory of Hygiene; R. B. Fitz Randolph, Trenton.

Chief inspector of foods and drugs, George W. McGuire, Trenton; deputy, Samuel S. Vandruff.

State Hospitals

Board of managers at Morris Plains: James G. Morgan, Weehawken; James M. Buckley, Morristown; John C. Eisele, Newark; David St. John, Hackensack; James W. Smith, Paterson; John A. McBride, Sussex; Richard A. McCurdy, Morris Plains; P. J. Ryan, Elizabeth; Charles H. Green, Secretary.

Board of managers at Trenton: Garret D. W. Vroom, president, Trenton; John Taylor, Trenton; Joseph Riee, Trenton; L. A. D. Allen, Woodstown; Cornelius S. Hoffman, Somerville; Benajah W. Andrews, Woodbury; J. Bayard Kirkpatrick, New Brunswick; Peter J. Rafferty, Red Bank; Scott Seammell, secretary.

Officers at Morris Plains; Medical director, Britton D. Evans, M. D.; Guido C. Hinchman, treasurer; Moses K. Everitt, warden.

Officers at Trenton: John W. Ward, M. D.; medical director; Harvey H. Johnson, treasurer; William P. Hayes, warden.

State Village for Epileptics

Board of managers: Thomas J. Smith, M. D., Bridgeton, treasurer; John H. Ewing, M. D., Flemington; Jas. Harper Smith, Somerville; Theodore Foote, Vineland; Nelson Y. Dungan, Somerville; Alexander W. Mack, Somerville; Howard P. Reynolds, North Plainfield; Norman Fox, Morristown; Henry M. Weeks, M. D., superintendent.

Home for the Care and Training of Feeble-Minded Women

Board of Managers: Benjamin F. Lee, president, Trenton; Mrs. Emily E. Williamson, secretary, Elizabeth; George B. Thorn, treasurer, Crosswicks; Mrs. Annie E. Gile, Bloomfield; Mrs. Caroline B. Alexander, Hoboken; John J. Cleary, Trenton; Charles H. Anderson, Vineland.

Feeble-Minded Children

New Jersey Training school for Feeble-Minded Girls and Boys, Vineland.—Directors: D. Wilson Moore, Clayton; William H. Nicholson, Haddonfield; Thomas J. Smith, M. D., Bridgeton; George Davidson, Vineland; Rev. H. H. Beadle, Bridgeton; Benjamin C. Reeve, Camden; W. Graham Tyler, Philadelphia; Charles Keighley, Vineland; P. P. Baker, Vineland; E. C. Stokes, Millville; Howard Carrow, Camden; Rev. R. B. Moore, Vineland; E. E. Reed, Camden.

Officers of the board: Philip P. Baker, president; William H. Nicholson, vice-president; George Davidson, treasurer; Edward R. Johnstone, secretary and superintendent.

Board of lady visitors: Mrs. Thomas J. Craven, Salem, president; Mrs. Charles Keighley, Vineland, vice-president; Mrs. Fanny A. Sheppard, Greenwich, secretary; Miss Susan N. Warrington, Moorestown, treasurer; Miss Kate A. Mott, Bordentown; Mrs. George S. Bacon, Millville; Miss Rachel E. Allinson, Yardville; Miss Julia Frame, Bridgeton; Mrs. Edward P. Shields, Bridgton; Mrs. William H. Skirm, Trenton; Mrs. Harriet Townsend, Elizabeth; Mrs. John Moore, Clayton; Miss Hannah C. Reeve, Camden.

Agricultural

State Board of Agriculture: E. B. Voorhees, New Brunswick, president; William Heritage, Swedesboro, treasurer; Franklin Dye, Trenton, secretary.

Commissioners of Agriculture College Fund: Governor, secretary of state, treasurer, attorney-general and comptroller.

Board of Visitors to State Agricultural College: Ephraim T. Gill, Aaron S. Borton, first district; John E. Darnell, Henry L. Sabsovich, second district; David D. Denise, James Neilson, third district; Samuel B. Ketcham, Peter V. D. Van Doren, fourth district; Ogden Woodruff, Melville S. Condit, fifth district; Abram C. Holdrum, Henry Marelli, sixth district; George E. De Camp, Cyrus B. Crane, seventh district; George Dorer, Joseph B. Ward, eighth district; Philip M. Brett, John Hudson, ninth district; Henry Bell, Henry A. Gaede, tenth district; Irving S. Upson, secretary.

New Jersey State Agricultural Experiment Station, No. 1.—Board of Managers: Governor, Professors Austin Scott and Edward B. Voorhees, together with the members of the board of visitors to the State Agricultural College. Director, Professor Voorhees; chief clerk, secretary and treasurer, Irving S. Upson.

Station No. 2. Board of Control: The trustees of Rutgers College; director Professor Edward B. Voorhees.

Medical, Pharmacy and Dentistry

State board of Medical Examiners: William P. Watson, Jersey City; William H. Shipps, Bordentown; E. L. B. Godfrey, Camden; Charles A. Groves, East Orange; Davis P. Borden, Paterson; Edward Hill Baldwin, Newark; John J. Baumann, Jersey City; John W. Bennett, Long Branch.

State Board of Dentistry: W. E. Truex, president, Freehold; Alphonso Irwin, Camden; Benjamin P. Luckey, Paterson; Charles S. Stockton, Newark; Charles A. Meeker, secretary-treasurer, Newark.

State Board of Pharmacy: George H. White, Jersey City; David Strauss, Elizabeth; Henry A. Jorden, Bridgeton; George W. Parisen, Perth Amboy; Edward P. Jones, Mt. Holly.

State board of Veterinary Medical Examiners: William Herbert Lowe, Paterson; T. Earl Budd, Orange; Whitfield Gray, Newton; Thomas B. Rogers, Woodbury; R. W. A. English, Jersey City.

Fish and Game

Commissioners: Benj. P. Morris, president, Long Branch; Richard T. Miller, Camden; David P. McClellan, Morristown; Percy H. Johnson, Bloomfield.

Fish and Game Protector: James M. Stratton, North Long Branch.

Fish and Game Wardens: John H. Avis, Woodbury; Fred S. Conner, Bridgeton; Harry L. Cook, Trenton; Edward R. Davis, Salem; Herbert E. Dane, Hoboken; Louis E. Foulks, New Egypt; William Guthridge, Camden; Alex. W. Hughes, Paterson; J. B. Hendershott, Newton; C. M. Hawkins, Elizabeth; Fred J. Hall, Bloomfield; Ernest L. Jones, Madison; Wm. B. Loder, Egg Harbor City; Howard Mathis, New Gretna; George L. Miller, Somerville; George Phifer, Ormond; H. Eugene Park, White House Station; Anson J. Rider, Tuckerton; Charles Ross, Cape May Court House; Thomas J. Torton, Peens Grove; Ward Varian, Demarest; Charles Wilbur, Camden; Charles Stenerwald, South Amboy.

Geological Survey

Board of Managers: Governor Edward C. Stokes ex-officio.

Members at large: John C. Smock, Ernest R. Ackerman, Emmor Roberts, Herbert M. Lloyd, Alfred A. Woodhull, S. Bayard Dod, Harrison Van Duyne, George G. Tennant, Thomas W. Synnott.

First district, Frederick R. Brace; second district, P. Kennedy Reeves; third district, M. D Valentine; fourth district, Washington A. Roebling; fifth district, F. A .Canfield; sixth district, George W. Wheeler; seventh district, Wendell P. Garrison; eighth district, Joseph L. Munn; ninth district, Joseph D. Bedle; tenth district, Aaron S. Baldwin.

State geologist, Henry B. Kümmel.

State Board of Forest Park Reservation Commissioners

The Governor and State Geologist, ex-officio members; E. B. Voorhees, New Brunswick; Theo. P. Price, Tuckerton; John C. Smock, Trenton.

Sewerage Commissions

State Sewerage Commission: Charles W. Fuller, president, Bayonne; William T. Hunt, Newark; John H. Capstick, Boonton; James E. Fleming, Newark; Frederick O. Jacobson, Newark; Boyd McLean, secretary, Jersey City.

Passaic Valley District Sewerage and Drainage Commission: Julius A. Lebkuecher, president, Newark; Francis Child, Newark; William McKenzie, Carlton Hill; John Hinchcliffe, Paterson; Peter Hauck, Harrison; John S. Gibson, Newark, secretary.

Oyster Commissions

State Oyster Commission: Jeremiah N. Ogden, Edward Stites, Jr., Ogden Gandy, William De Groff; Alonso T. Bacon, superintendent and secretary, Mauricetown.

The Oyster Commission for the District of Ocean County: Ernest L. Worth, Samuel B. Allen, Napoleon E. Kelley, Edward A. Horner, Jr., superintendent, West Creek.

Atlantic County Commissioners: Levi C. Albertson, president, Atlantic City; Walton Conover, secretary, Atlantic City; Alfred B. Smith, superintendent and assistant secretary, Bridgeton; Richard M. Sooy, M. D., Atlantic City.

Shark River Commissioner: A. Frank Bennett, Jr., Avon.

State Bureau of Shell Fisheries: Chief, Charles R. Bacon, Camden.

Palisades Interstate Park

Commissioners of the Palisades Interstate Park: George Waldridge Perkins, New York city; D. McNeely Stauffer, Yonkers, N. Y.; Edwin A. Stevens, Hoboken; J. Dupratt White, Nyack, N. Y.; Franklin W. Hopkins, Alpine, N. J.; Ralph Troutman, New York city; William A. Linn, Hackensack; Nathan F. Barrett, New Rochelle, N. Y.; Abram De Ronde, Englewood; William B. Dana, New York city.

Technical and Industrial Schools

Trustees Newark Technical School: John B. Stabaens; George R. Howe, Francis M. Tichenor, George W. Ketcham, Moses Straus, A. B. Garner, George H. Phillips, James L. Hays.

Trustees Industrial Education, Hoboken: William Keuffel, Abraham J. Demarest, Edward Russ, William D. Forbes, William R. Jenvey, Richard Stevens, Mrs. C. B. Alexander, James Smith.

Board of Trustees of Industrial Education, Trenton: Frederick R. Clark, Edward C. Stover, Archibald M. Maddock, Harry C. Taylor, Alfred W. Wishart, Garret D. W. Vroom, Charles Howell Cook, Karl G. Roebling.

Miscellaneous

State Director of the United Railroad and Canal Co.: Charles Bradley, Newark.

State Director of Weather Service: Edward W. McCann, New Brunswick.

Inspectors of Steamboats: Charles Edwards, Waterloo; George Wright Campbell, Milburn; J. Fred Runyon, Morristown.

Commissioners of Pilotage: Daniel C. Chase, president, South Amboy; Charles B. Parsons, Red Bank; John R. Dewar, secretary, office Fuller building, Jersey City; Henry C. Gulick, Barnegat; Mark Townsend, Linwood; Douglas Haley, Mauricetown.

Managers New Jersey Firemen's Home: Benjamin W. Clowd, William M. Jefferies, William T. Corliss, Charles N. Reading, John McKiernan, John S. Gibson, George T. Werts, Egbert Seymour.

State Board of Children's Guardians: Anthony T. Williams, Trenton; Emily E. Williamson, Elizabeth; Hugh F. Fox, Bayonne; Katherine E. Abbey, Mount Holly; Joseph McCrystal, Paterson; Frederick G. Burnham, Morristown; Rev. J. R. Atkinson, Elizabeth.

Commissioners of the State Museum: The state geologist, state superintendent of public instruction, the president of the state board of agriculture, president of the senate and speaker of the assembly; curator, S. R. Morse, Atlantic City.

State Board of Architects: Charles P. Baldwin, president, Newark; Charles Edwards, Paterson; Arnold H. Moses, Camden; David P. Provost, Elizabeth; Hugh Roberts, secretary and treasurer, Jersey City.

Board of managers of the New Jersey Sanatorium for Tuberculous Diseases: Dr. Charles J. Kipp, Newark; Dr. Elmer Barwis, Trenton; D. W. S. Jones, Camden; Dr. James S. Green, Elizabeth; Austin Scott, Ph.D., LL.D., New Brunswick; Edwin A. Stevens, Hoboken; Frank L. Sheppard, Newark; Dr. A. L. Beavens, Glen Gardner.

State Board of Voting Machine Commissioners: Franklin Phillips, Chatham; Seward

Davis, Upper Montclair; Joseph A. Brobel, River Edge.

Police Justices: Joseph B. Bray, Orange; Andrew S. Taylor, South Orange.

Members of Monmouth County Battle Monument Association: Joseph Yard and Frederick Parker.

Commission on a State Reformatory for Women: Leroy Anderson, Princeton: Edwin G. Adams, Montclair; Mrs. C. B. Alexander, Hoboken; Mrs. George W. Blackwell, East Orange; Mary Fellbrook.

New Jersey Tenement House Commission: John A. Campbell, president, Trenton: Clinton MacKenzie, Elizabeth; Edwin West, Jr., Hohokus: Edward W. Gray, Newark; James M. Stewart, Paterson; Charles J. Allen, secretary, Newark.

Passaic River Flood District Commission: Franklin Van Winkle, Paterson; Richard Morrell, Passaic; Marshal O. Leighton, Montclair: John M. Bell, Rutherford; Morris Sherrerd, Newark.

State Board of Public Accountants: Frank G. Du Bois, president, Newark: Elmer B. Yale, Secretary, Jersey City: Isaac A. Lewis, treasurer, Paterson.

Commissioner of Charities and Corrections: George B. Wight, Trenton; assistant commissioner, George E. Poole, Trenton.

Custodian State House, John W. Weseman, Trenton night custodian, Simon Gerson, Trenton; assistant custodian, William H. Meserole.

History of New Jersey

The first land that delights the eye of the ocean voyager upon the broad Atlantic as he nears the "gateway of the new world", is the lofty highlands on which stand the twin lights of the Navesink, nightly shedding their welcoming and warning rays seaward for many miles.

The next point of interest on the way to the metropolis is Sandy Hook, once called Coleman's Point in memory of a fellow voyager of Henry Hudson, who met his death at the hands of savages. The brave sailor's body was buried here nearly three hundred years ago, the first sacrifice on these shores to the redemption of the Western World from aboriginal barbarism, and its dedication to the high achievements of a Caucasian civilization.

The good ship carrying the home-comer who is returning to his native land in a spirit of thankfulness that his lot has been cast here, and the poor immigrant looking hopefully to the future for the home which he has determined to secure by his honest labor in this glorious land of promise, continues her stately advance until the shore, with its line of forest-crowned hills, comes more clearly into view. Then are seen many beautiful homes and church spires, which add the element of human interest to the picturesque scene.

The "Narrows;" as the entrance to New York bay is called, is reached and passed. The next object that demands attention is the colossal bronze statue of Liberty enlightening the world, which stands on a small island well out in the noble bay, with the shores of New Jersey as a background. This grand, majestic figure which rises three hundred and fifty feet above the ground on which it stands, and which so fittingly typifies "liberty" as understood by lovers of their country and of mankind, was a gift of France—its tribute of admiration for what the great republic has accomplished for the liberation of man, and also in commemoration of the dark and trying times of our Revolutionary struggle, when both peoples fought side by side for the same sacred cause. The statue stands on what is known as Bedloe's Island, formerly a part of New Jersey, but ceded by the state to the United States government as the most appropriate site for this great commemorative and symbolical monument. The immense fortifications on both sides of the "Narrows" were clearly seen and demanded attention before Bedloe's Island was reached, and now that point passed, the great metropolis comes gradually into plainer view.

The sky-line formed by the tall buildings, the rivers on the right and left, or east and west of the city, both mingling their waters in the magnificent harbor that extends southward, bordered on the west side over its entire distance by the shore of New Jersey, the hundreds of steam and sailing craft of every size and variety known to marine construction—some anchored out in the waters of the upper harbor, others tied to wharves discharging loads of merchandise brought from far distant climes, all taken together form a most wonderful picture of the results of the energy and enterprise of a free people.

Everywhere about these shores are historic memories of the most exalted and interesting kinds. The waters that wash them now once bore the frail barks of the venturesome early explorers who sailed westward over the trackless waste of the Atlantic, following the course blazed on its until then unknown waters by the greatest of all navigators and explorers—Christopher Columbus. The New Jersey shore line of the bay and Hudson river where the scenes of many landings and settlements by those hardy voyagers. Treaties with the Indians, noted in the early archives of the colony of New Jersey, were made here, and many interesting incidents of the struggle between the Continentals and the British army and its Tory sympathizers transpired in the part of our state that extends westward from these

FIRST REGIMENT ARMORY, NEWARK, N. J.

CANNON CAPTURED IN CUBA, 1898, MILITARY PARK, NEWARK, N. J.

shores. New Jersey is justly styled the "battleground of the Revolution", and there is scarcely a foot of her territory, particularly in this section, that has not been made sacred by the tramp of Washington's brave and devoted army and by the blood which his gallant soldiers freely poured forth in many hard-fought and bravely won battles for liberty.

The great immigrant landing place of the port of New York is on Ellis Island, which is territorially a part of New Jersey. Here upward of eight hundred thousand wanderers from all the civilized lands of the earth are annually received and cared for until sent to their various points of destination in such parts of our vast territory as they may have chosen for abodes.

New Jersey is traversed by all the great trunk lines of railway that run east, west, north and south; these great highways of commerce which penetrate our vast continent, connecting the Atlantic with the Pacific, and the lake region of the north with the sunny lands bordering upon the Mexican gulf, all converge by direct line or branch on that part of the shore line of New Jersey which extends from Communipaw on the south to Weehawken on the north. Fully three quarters of the total number of immigrants that seek our shores annually in search of new homes find the first American soil on which they are privileged to stand somewhere between these two points. It may also be said with safety that a like proportion of the exports and imports which constitute the commerce of the great port of New Jersey enter into or depart from our continent within the limits of the same district.

New Jersey, eminent for many things contributory to the progress of civilization, is preeminent in railroad facilities. Her mileage of tracks in proportion to area of territory and population is greater than that of any other state in the Union, and the terminal facilities of passenger and freight depots which line the shores of the harbor and the Hudson river are, in the matter of capacity and equipment, unequalled by similar establishments in any part of the world. In this connection it is intresting to recall the fact that the first railroad charter granted in America was issued by the State of New Jersey to Col. John Stevens, of Hoboken. The date of this important epoch-making franchise was 1817, and the grant out of which the beginnings of the great Pennsylvania railroad—now the standard railway of the world—grew, was granted five years later in 1823. Now the great depots and caravansaries of the Central Railroad of New Jersey, the Pennsylvania Railroad, the Lehigh Valley, the Erie, Lackawanna, New York, Ontario, and Western, and the West Shore— these gigantic structures occupy in almost unbroken array the New Jersey shores of the harbor and river, from the Kill von Kull to the southern extremity of the majestic Palisades of the Hudson.

Large coal shipping wharfs and towering grain elevators are also here—all parts of the stupendous machinery of transportation of which the great trunk line roads referred to above form the basis.

Here are the tidewater depositories for the distribution of practically all the coal mined in the Wilkesbarre and Scranton districts, and also for a very large proportion of the same commodity taken from the coal fields of the Lehigh Valley. The grain brought from the great wheat fields of the Northwest by the way of the Great Lakes, Erie canal and the Hudson river is here transhipped to ocean carriers and sent across seas to the remotest corners of the earth. Nowhere else on the continent is there so much that is illustrative of the all-conquering energy of American industrial and commercial life than is to be seen here, and yet it is much less than three centuries since Michael Pauleson, an officer of the Dutch West India Company, erected for himself a solitary hut—the first habitation of a white man on the land now covered by Jersey City, which is now the center of all this industrial activity.

On the river fronts of Jersey City, Hoboken and Weehawken are the piers and freight wharfs of some of the greatest ocean steamship lines of the world. The Hamburg-American, the North German Lloyd, the Scandinavian-American, the Italian General Navigation and other lines of lesser note—all sending their gigantic ships at weekly or even shorter intervals to the ports of northern, western and southern Europe, the Mediteranean and the Orient.

But the fame of these towns does not rest alone on their rai'road and steamship terminals. Within their borders are large, prosperous populations, whose bread-winners find constant and well-paid employment in hundreds of manufacturing establishments engaged in the production of almost every commodity known and related to modern life. Many of these industrial plants are the leading ones of their kind, not only in our own country, but also in the world.

ST. PATRICK'S CATHEDRAL, NEWARK, N. J.

Y. M. C. A. BUILDING, NEWARK, N. J.

Immediately north of this area of wonderful business and commercial activity there looms up one of the grandest scenic triumphs of nature to be found in any part of the world —the Palisades of the Hudson. This rugged and picturesque wall of rock, rising in bold and imposing grandeur hundreds of feet above the placid waters of the noble river that washes its base, continues for miles to and past the northern limits of the state. Back of this rock ribbed river boundary is a plateau, beginning at its summit, which slopes away in a beautiful undulating landscape to the Hackensack river, about ten miles away. The Palisades will continue to be an interesting and sublime feature of the natural scenery of our country while time endures; this is now assured, for the public-spirited citizens of New Jersey taking the lead have, with the co-operation of the great state of New York, placed this wonderful work of nature forever beyond the reach of the despoiler and the vandal.

Returning southward to the point where the Kill von Kull enters New York bay, we find on the New Jersey shores of the Kills, another great hive of industry in Bayonne.

Many are the varieties of industrial activity here, but all combined are overshadowed by one —oil refining and the extraction from crude petroleum of the numerous by-products, which scientific analytical chemistry his contributed to the convenience and comfort of modern life. Several large corporations, doubtless attracted to the place by the miles of deep water frontage which surrounds it, have extensive works at Bayonne.

The shore front of Bergen Point, also a part of Bayonne city presents an attractive panorama of beautiful homes with green lawns extending in graceful slopes or terraces to the granite sea wall which protects the "point" from the rapidly flowing waters of the "Kill," as they meet those which flow south from the Passaic and the Hackensack, and mingling together continue in the same course through Staten Island sound down to the sea.

It was in Elizabethport that, in 1780, the Hessian—Gen. Knyphausen—landed with a force of five thousand men, intending to march from there to Morristown and attack the diminished and half-starved army of Washington; but before the invaders had advanced a mile from their starting point, a small force, composed of patriotic residents of Elizabethtown, met and drove them back to their boats. The first company of soldiers raised in New Jersey for service with the Continental army was recruited in Elizabethtown, and many as well as fierce were the skirmishes that took place in this town during the dark and trying years of the Revolutionary struggle, between raiding bands of Tories from Staten Island and New York and the loyal sons of New Jersey, who, ever on the alert to meet the marauders, were invariably successful in driving them off, although not always was this accomplished without the loss of many precious lives. One of the saddest but most glorious memories of those trying times is associated with one of these raids. A numerous band of Tories landed on the New Jersey shore and marched to Elizabethtown, the much weaker body of patriot defenders retreating before them. The patriots took refuge in the old church building which stood on the ground now occupied by the First Presbyterian Church; the Tories surrounded the sacred building and poured volley after volley against the doors and through open windows, but the devoted band within, led and encouraged by the pastor, Mr. Caldwell, at last succeeded in driving them off but not before many lives had been sacrificed.

The saddest incident connected with this raid and the resultant battle was the murder of the devoted wife of the pastor by a Hessian soldier, who stabbed her to the heart in her own home while she was kneeling in prayer.

Our humble tribute to the Revolutionary memories which cluster around Elizabethtown having been duly paid we return to note some of the striking things to be seen about the Amboys that were not referred to before. The Raritan river here discharges its waters into Princess bay, an arm of which forms the fine harbor that fronts Perth Amboy on the north and South Amboy on the south shores of the river. This region is pre-eminent in the production of clay products of every variety. At South Amboy are the great tidewater depositories for coal brought by the Lehigh Valley railroad from almost the entire anthracite regions of Pennsylvania. Millions of tons are stored here, and millions more are every year shipped by boats to the ports of the country north and south for distribution by rail and river to the interior cities of the continent that are not situated on the lines which lead directly to and from the mines.

Perth Amboy is a port of entry, and in the early colonial days enjoyed a far greater sea commerce than did the city of New York at that time. It is still a place of much impor-

HIGH SCHOOL, NEWARK, N. J.

PUBLIC LIBRARY, NEWARK, N. J.

tance as a manufacturing center, having within its confines the largest silver refinery, the largest copper refinery and the largest fire brick and terra-cotta works in America. The most important interior waterway of the state—the Delaware and Raritan canal passes through the Amboys here and empties its waters into the ocean. For many years before the great railways of the state were developed this artificial waterway was the best and almost the only means of transporting cargoes to the large inland towns, which owe much of their present importance and prosperity to the freighting facilities afforded them by this now almost obsolete means of carrying on commerce.

Further down the coast lies the quaint and picturesque town of Keyport, which was once a great center for the cultivation and marketing of oysters. Although much of the glory it enjoyed from that trade in former years has departed, there is still enough of the traffic left to furnish "Keyport" to those lovers of the luscious bivalves who are partial to them. But Keyport has been fortunate in that the agricultural interests of the country lying back of it grew in about the same ratio as the oyster business diminished, so that at present its commerce is perhaps greater than ever; the only difference being that it is now made up more largely of farm products than of oysters and fish as was once the case.

Keyport is the last purely commercial or manufacturing town on the Atlantic coast of New Jersey; throughout its entire length of one hundred and twenty-five miles from this point to Cape May the shore is dotted with summer resorts well known to pleasure-seekers throughout the world. There is Seabright, Long Branch, Elberon—where the lamented President Garfield died—Asbury Park and Ocean Grove, which is unique among pleasure resorts because of its association with one of the most numerous religious bodies in the United States.

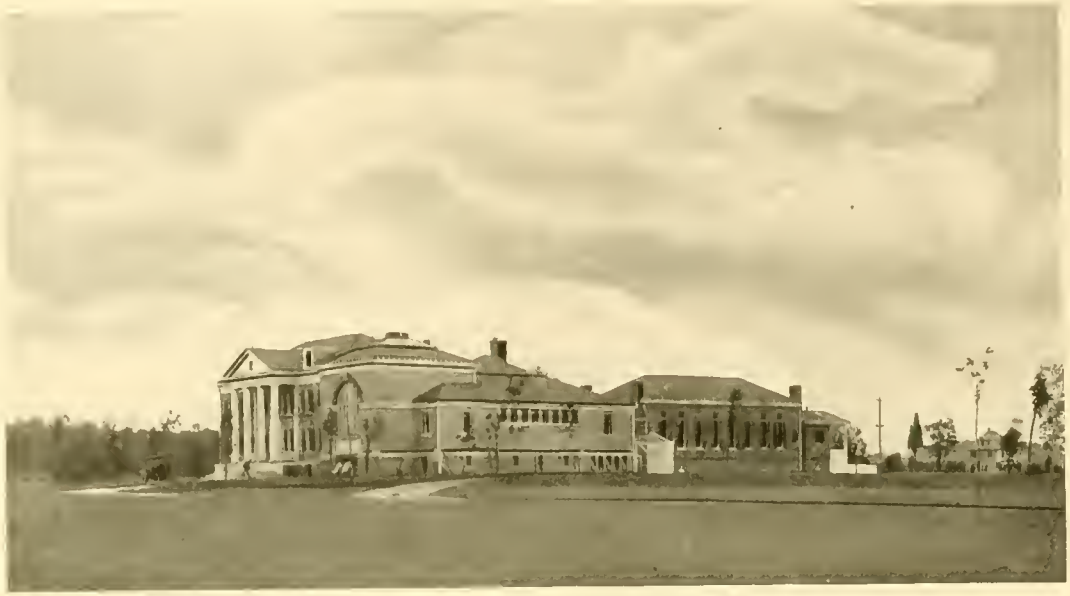
A few miles further south is Sea Girt, the military camp of the national guard of the state, to which each regiment is annually brought in its turn for one week's practice in actual military duty, camp life and target practice.

Atlantic City, the next place of note, is by far the greatest of American seaside resorts. Its permanent residents number thirty thousand souls, but during the summer season it houses a population of fully two hundred and fifty thousand. This famous resort enjoys the best possible railroad connections with every section of the country, and in addition to regular residents and summer boarders, it is visited daily by thousands of excursionists from the north, south and west.

At the extreme southern part of the state is Cape May, which is probably the oldest seaside pleasure resort in America. Many years before railroads were dreamed of, Philadelphians patronized that delightful part of the New Jersey coast, when to reach it they had to make the journey in their own private carriages. The first white man known to have landed here was Capt. Cornelius Jacobson Mey, a Norwegian, who sailed along this part of the coast and up into the Delaware river and bay. The navigator was so pleased with the beautiful point of land jutting out into the ocean that he landed thereon and bestowed upon it his own name. Two hundred and thirty years later Cape May became a city, and no fairer stretch of coast and sea can be found any where in the world than that part of the coast of New Jersey where it stands. Rounding the cape, and passing up the Delaware river, which here empties its mighty volume of water into the Atlantic Ocean, we come to Maurice River Cove, where the great oyster-planting grounds of the state are located. From the Delaware bay and Maurice River Cove there is taken annually upward of three million dollars worth of oysters, which are shipped by rail or boat to all parts of the country. Upwards of two thousand men and four hundred sailing crafts of various sizes are engaged in this important industry.

Further up the river are the manufacturing towns of Bridgeport and Salem, the latter famous for its glass works and fruit and vegetable canneries. There are many thriving towns on the New Jersey shore of the Delaware, all of them noted for the possession of large and flourishing manufacturing industries.

Camden, situated at nearly the head of navigation for large vessels, is the most important and populous New Jersey city on the river. The industrial establishments of this flourishing city are most innumerable. Included among them are two of the largest shipbuilding plants in the country. Large engine building shops, machine works and foundries known through their products the world over are found here. Camden is a favorite center for the various forms of textile manufacture and for the tanning and finishing of leather. Many



MUHELENBURG HOSPITAL, PLAINFIELD, N. J.

BROAD AND MARKET STREETS, NEWARK, N. J.

very large factories engaged in these lines of business furnish profitable employment to thousands of men and women residents of the city.

Midwoy between Camden and Trenton is the city of Burlington, also situated on the river: here are many shoe factories and canneries, as well as other industries of an important character which are steadily increasing in number and proportions.

Trenton, the capital city of the state and the home of some of the largest pottery manufactories in the world, is finally reached. Trenton as a pottery center is second in the United States only to New Liverpool in the west; but it is questionable whether there, or any place else in the world, excepting only the art establishments of Europe, China and Japan, better ware is made. The industries of this city, outside of the potteries, are large and highly diversified. The great Roebling plants for the production of structural steel and iron are located here. Machine shops, foundries, woolen mills, cement works, wood-working mills, furniture factories: in fact, all the activities of a productive kind required to furnish employment for a large population of intelligent men and women are to be found running prosperously in this thriving wide-awake city.

Trenton played an important part, or rather was the scene of supremely important occurrences during the closing years of the Revolutionary War. Here was fought the battle which is now commemorated by a monument in the form of a high marble column surmounted by a colossal bronze figure of General Washington in the attitude of directing his troops. The monument stands at the head of one of the principal streets, and is plainly visible from all parts of the city.

It was here, too, at a point now included in the area of the city's beautiful pleasure ground —Cadwallader Park— that the famous passage of the ice-covered Delaware was effected by Washington's army on that bleak December night that preceded the battle.

Leaving the banks of the river, which here ceases to be navigable for even the smallest craft, we find not far away the beautiful old town of Princeton, where the second and the decisive part of the Batttle of Trenton was fought and won. Here is located the famous university of Princeton, one of the oldest and best known institutions of learning in this country. Proceeding northward from here, miles and miles of splendid agricultural country with cultivated fields and comfortable farmhouses pass in panorama-like review. Picturesque little villages are met here and there, with the ever-present schoolhouse engaged in the noble work of training the youth of the land to meet the duties and responsibilities of life, and the little church with its slender spire pointing upward as in mute acknowledgment of the blessings which Providence has so bountifully bestowed on all.

Continuing northward, the large and flourishing manufacturing city of New Brunswick comes into view. Amost from the very beginning of the Revolutionary struggle until its close this town and the country immediately surrounding it was the scene of many fierce and sanguinary struggles between the contending forces, in which success alternated from one side to the other, to rest finally with the triumphant Americans.

While there is much about the old town of New Brunswick that is suggestive of colonial times, it is still in all essential respects at the present time a fine, progressive, modern American city. Near its business center are grouped the any fine buildings of Rutgers College, surrounding the large and park-like campus with its noble shade trees and beautiful, smooth well-kept lawns.

The Raritan river and the Delaware and Raritan canal run east and west along the northern part of the city, which is connected with the opposite shores by splendid railway and general traffic bridges, strongly built of stone to resist the pressure of the great ice pack that sometimes in winter forms in the river.

There are many fine factory buildings here, distributed principally along the river front. Two of these, the wall paper plant and the surgical and medical appliance laboratory, are the largest establishments engaged in their lines of business in the world.

Still northward from New Brunswick, a distance that is covered by the trains of the Pennsylvania railroad in a little more than one hour, stands Newark, which is the largest city in New Jersey in point of population, wealth, number and variety of manufactories and all the other institutions and features that go to make a great city. It is as a manufacturing city that Newark is most famous. There is said to be not one line of productive industry known to civilization that is without a representative establishment within her borders.

Here are immense plants for the production of the heaviest machinery, such as Corliss engines, steam pumps, agricultural machinery,

CITY HALL, PATERSON, N. J

POSTOFFICE, PATERSON, N. J.

electrical machinery of the heaviest and also the lightest and most delicate types, watches, sewing machines and jewelry. In this last named industry there are now some eighty distinct factories engaged in the city of Newark, ranging in size from establishments employing six hundred operatives downward to others which give work to perhaps a half dozen individuals. Newark stands first among the cities of the United States in the manufacture of solid gold and silver articles classifiable as jewelry.

Other lines of industry in which Newark is either eminent or preëminent are the production of leather and the many lines of goods made from that commodity; hard and soft felt hats and spool thread. There are many large tanneries, trunk and bag manufactories, and counting the Orange valley shops with those of Newark, there are upwards of fifty large plants engaged in the production of fur and felt hats and several employed in making varnish. Long before the era of railroads, Newark city was an important manufacturing and commercial center and enjoyed very great advantages from its location on the Passaic river and also from the once famous Morris canal, through which coal, iron and other freight was in pre-railroad days brought by boat to the very center of the city.

The city of Paterson, which lies about fifteen miles north of Newark, is another large center for several important lines of manufacture. Her chief industry, the one that in fact, is much greater in its proportions than all the others combined, is the manufacture of silk goods.

Paterson, "the silk city," sometimes called the "Lyons of America," has one hundred and three mills and more than a dozen dye houses, all engaged in the production and finishing of the finest silk fabrics. Nearly one-half of the entire product of silk goods in the United States comes from New Jersey mills, and of these fully ninety per cent. are located in Paterson.

In 1903 there were forty-five millions of dollars of capital invested in these mills, and the prodigious number of twenty-eight thousand persons, about equally divided between men and women were employed in them.

There are two large plants in Paterson for the construction of locomotives, both of world-wide reputation for the superiority of their work. At one of these shops all the engines now in use on the Russian Asiatic roadways were produced.

There is also an immense steel and iron rolling mill here, and a linen thread manufactory which employs thousands of people and produces a grade of goods equal to the best of its kind found elsewhere in the world. The Passaic Falls long furnished the power to run Paterson mills, and although steam engines are now largely used there are many manufacturers that still use the water power.

Passaic, distant about two miles from the larger city of Paterson, is another great and important manufacturing center, probably the greatest in the state in proportion to population. Like Paterson, the textile industries predominate, but here, instead of silk, there are immense woolen and worsted mills, in which yarns and cloth of all kinds are made. There are several large plants for the manufacture of rubber goods; six manufactories of handkerchiefs, in which many hundreds of girls are employed, and a number of chemical works of an extensive kind. Besides these manufactories there are other extensive establishments engaged in the manufacture of cables, artificial leather belting and packing and foundry products. With these very brief notices of the important manufacturing centers of the state named above, a few facts and figures relating to the collective industries of New Jersey will fittingly close this part of our review.

The State of New Jersey ranks sixth in the list of manufacturing states in the value of her annual output of manufactured goods; she is surpassed in this respect only by the great states of New York, Pennsylvania, Massachusetts, Illinois and Ohio.

In the per capita value of the annual product of her factories and workshops, New Jersey, occupies second place among the states, she being surpassed in this respect only by Massachusetts; the lead of the last named state is, however, very slight, and if New Jersey's rate of increase is maintained the next decennial census will find her in first place.

In the progress made during the ten years which intervened between the eleventh and twelfth census years, 1890-1900, the rate of increase in the value of manufactured products in New Jersey was seventy-two and one-half per cent. (72.5), as against thirty-eight and three-tenths per cent. (38.3) gain by her closest competitor.

In the amount of capital invested in all forms of productive industry, New Jersey is fourth in rank and in the number of persons employed she holds the sixth place.

In the year 1903 there were about two thousand four hundred (2,400) manufacturing

PASSAIC COUNTY COURT HOUSE. PATERSON. N. J.

GENERAL VIEW OF PATERSON N. J.

establishments in New Jersey in which ten or more persons were employed.

In these establishments there was capital aggregating four hundred millions ($400,000,000) of dollars invested in 1903. The value of the manufactured goods produced in these factories and workshops was not much short of seven hundred millions ($700,000,000) of dollars during the same year. In these vast industrial enterprises an army of three hundred and forty thousand (340,000) operatives find constant employment at wages that average much higher than the earnings of labor in any other section of our country.

This condition of prosperity has had its origin in the wonderfully advantageous geographical position of our state. Its splendid water frontage on the Hudson river and New York bay on the east, and the noble Delaware on the west, with many other navigable streams and canals, have all contributed their share; but the great controlling factor in building up the industrial and commercial greatness of our beloved commonwealth has been, and will continue to be, the fact that all the great transcontinental lines of railway traversing the state in all directions converge together upon her eastern shores.

A glance now at some other features of the state and the little space that can be afforded here for a subject that could be spread over volumes without exhausting it will be covered.

The northern part of New Jersey is noted for its wondrous scenic beauty. The mountains of Sussex, Morris and Warren counties will compare favorably with the Allegheny regions of western Pennsylvania and West Virginia.

This beautiful part of our state is populated by a hardy race of farmers who cultivate the rich valleys between the mountain ranges, earning an independent living thereby. Hundreds of wealthy citizens of the metropolis, attracted by the beautiful scenery and salubrious mountain air, have built palatial country homes here. The unsurpassed facilities afforded by railroads which connect this section of our state with New York is steadily and rapidly increasing this class of our population. In Morris County lies our beautiful Lake Hopatcong on the summit of a mountain range fifteen hundred feet over sea level. This magnificent sheet of water is nine miles long and has an average width of three miles. Its numerous islands and beautiful wooded shores, dotted at intervals with rich and commodious mansions built by people of wealth who reside here in many instances throughout the entire year, presents a scene of idealic beauty which cannot be adequately described.

While the part of our state possesses all the features that attract those who admire the sublime and the beautiful in nature, it has also immense potentialities of future development along industrial lines. These mountains contain incalculable wealth in the form of deposits of the richest magnetic iron ores to be found in the world. Some of the mines producing these ores have been worked since 1740, and much of the cannon and cannon balls that formed the artillery supply of Washington's army were cast at the old Taylor foundry at High Bridge from iron taken from the Hibernia mine at Stanhope and reduced in a small furnace a short distance from the mine, the ruins of which are still standing. Zinc and copper with other minerals are also found and profitably mined in these regions, and the mountain streams that abound everywhere have brought many a factory into the intervening valleys to take advantage of the almost costless water power which they supply.

New Jersey! Beautiful beyond compare in everything that delights the eye and appeals to the mind. Rich in the possession of almost every natural advantage; the home of wealth, refinement, industry and patriotism, with every interest of life protected by just and equitable laws; what more can even the most ardent lover say in her praise?

When the first settlers came to this country and penetrated into the forests of New Jersey they found a division of the great Algonkin family of Indians, known as the Delaware or Lenni Lenape, hunting game and paddling their dug-out canoes upon her waters. These Indians had at that time made some progress in agriculture and the elementary arts, and were peaceably disposed. Even then they were few in number, and the last of the tribe has long gone to the happy hunting grounds.

In the beginning, New Jersey was not an English colony. Holland, under the auspices of the Dutch West India Company, was the first to send her planters, as settlers, into this part of North America. By 1650, ignoring the English claims and grants of the Crown, she had, by settlement or occupancy, well established herself upon the banks of the Hudson, Passaic, Hackensack and Raritan rivers, as well as upon those of several smaller streams.

WINTER SCENE, PASSAIC FALLS, PATERSON, N J.

PASSAIC FALLS, PATERSON, N. J.

The ambitious Gustavus Adolphus, in his supreme desire to make Sweden a world power, equipped an expedition in 1638 to settle upon the banks of the Delaware river. Here Sweden established for a brief period civil and military government, and a short reign of prosperity was enjoyed. But in 1655 New Sweden was conquered by the Dutch, and for the ensuing nine years New Jersey was absolutely under the control of the Hollander.

But England was only biding her time. When peace and the house of Stuart were restored to England, Charles II, with disregard for anything beyond or above his own pleasure in the matter, ignored or trampled upon all previous grants executed, and deeded to his brother James, Duke of York, a large tract of land, comprising what is now the entire State of New Jersey with much of New York and New England.

But the Dutch colony practically separated the New England colonies from those of Virginia, Maryland and the Carolinas, which was not conducive to their welfare and closer union. In the summer of 1664, negotiations were entered into with the Dutch that were strongly reinforced by the presence in the harbor of New York of English men-of-war. The Dutch surrendered.

James, Duke of York, had already transferred to two favorites of the house of Stuart —John, Lord Berkeley and Sir George Carteret—what is now the entire State of New Jersey. The name, New Jersey, was given the land in honor of Carteret's defence of the island of Jersey in the Parliamentary wars. During the troublous times of the war between King and Parliament he had held the island for King Charles II, and as a reward was made treasurer of the navy and vice-chamberlain of the king's household.

The unusual natural advantages of New Jersey, the diversified scenery, the water facilities, the rivers, the coasts, the mountains, and sheltered valleys, the game, fish, shellfish, fruit, nuts and the climate so well adapted to the cultivation of cereals and vegetables were even at that early day appreciated by New Jersey's first settlers, and largely dwelt upon in their letters to friends at home.

Carteret and Berkeley were sufficiently judicious in making known these natural advantages, and also in the form of government they adopted, to soon attract to the little colony not only men from England and Scotland, but also from Long Island and New England. These families settled principally in Newark; Elizabeth and on the north shores of Monmouth county. In religion, the major part were distinctively Calvinistic; in civil government and in their home life, harsh, exacting and rigid; in character, honorable, earnest and honest. They recognized the church and the school as the very foundation of their government and existence, and the minister as the head of both.

After a few years, Berkeley disposed of his rights to a company of English Quakers, and in 1676 a geographical division of the state occurred. From a certain point in Little Egg Harbor to a terminus near the Delaware Water Gap a line was drawn, and the line east of this, the colony of East Jersey, was assigned to Berkeley and his associates, while Carteret retained West Jersey.

In West Jersey the influence of the Society of Friends was predominant. The civil government was largely modeled after that of Virginia's, while in East Jersey it resembled that of New England.

In 1675, Salem was settled; about 1680, Gloucester and what is now known as Trenton, at first called the "Falls"; in 1865, Tuckerton and Cape May.

But the Dutch had not been idle all this time. New Jersey was too fair a possession for them to willingly relinquish. In 1673, an effort was made to retake the colony, and it was successful. The following year, however, it again reverted to England.

Shortly after this, a question arose as to the Duke of York's title. James II claimed the proprietary right of government, and Andros was commissioned governor. During the next six years dissensions frequently arose, for the spirit of rebellion against injustice had been aroused. It reached such a height in 1680 that the governor was arrested and carried to New York as a prisoner. The following year, 1631, the crown recognized the justice of the proprietor's contention, and local government thus was assured. Yet seeds had been sown that later bore fruit in the blood stains, the sufferings, the heart sorrows and the triumphs of the Revolutionary war. Thus New Jersey was among the first of the little colonies to feel the wrongs of the oppressor and to take her stand for justice. On her soil, perhaps, were sown almost the first seeds that led to freedom for the colonists, and to the establishment of our great republic.

But internal disagreements now arose. Wealthy combinations of capitalists had se-

BELLE VISTA CASTLE. RESIDENCE OF C. LAMBERT, PATERSON, N. J

THE CHASM BRIDGE, PASSAIC FALLS, PATERSON, N. J.

cured from Berkeley and Carteret, or their assigns, the right to large tracts of land. This included the privilege of selecting governors and members of the executive council, rights which Berkeley and Carteret had derived from the crown, for the royal grant not only conveyed the absolute right and title to the land, but also the power to govern and to establish such laws as "might be thought necessary, provided they were not contrary, but, as near as conveniently might be, agreeable to the laws, statutes and governments of the realm of England." This gave the entire governmental control, as it were, including the privilege of selecting governors, and members of the executive council.

The "quit-rent" agitation in East Jersey was now at its height, and the two colonies were so disorganized by these various disturbances that in 1702 the board of proprietors surrendered to the crown its rights of government, and, the two provinces being united, New Jersey for the first time became a royal colony.

From this date, 1702, until the outbreak of the Revolutionary war, there was constant and ill-concealed friction between the representatives of the crown—the governors—and the local representatives—the House of Assembly. Those without property qualifications raised the cry of "aristocracy" and were so generally and strongly opposed to the governors selected by the crown, who had, perhaps, made but comparatively slight attempts to conceal their desire to enrich England, utterly regardless of impoverishing the colony, that a governor was given New Jersey alone. Heretofore the same man had held office jointly over both New Jersey and New York.

The peculiar natural adaptation of the state for various lines of business and industries, had separated it, so to speak, into sections of varied business interests. In the western part of the royal colony farming was the principal occupation; in East Jersey, commerce was the important factor; Perth Amboy threatened to rival New York as a commercial port, while Newark, Elizabeth and the Monmouths were of no slight importance as shipbuilding centers. Notwithstanding the fact that the repressive political policy of the crown was such as to preclude the broad development of manufactures, yet in the southern part of the state the abundance of sand and the seemingly limitless forests of oak and pine naturally led to the manufacture of glass, while the large quantity of oyster shell lime, with bog iron, caused forges and bloomeries to spring up. Cedar was extensively mined from the sunken forests of the tide-water districts and used for shipbuilding. Copper mining was carried on in the northern central part of the state. But all these manufactures were so hampered and restricted by the unwise policy of England that, instead of development being carried on broadly, comparatively little was done. The fish industry was unhampered, also the trade in skins and in the salt hay yielded by the marsh lands. These, therefore, were all that could flourish.

Then, from 1702 to 1776, English legislation was such as to place gold, silver and copper practically on a premium basis. An inflated paper currency, first issued in 1707, to aid the Canadian expedition against the French, was provided. The effect of all this was to greatly restrict competition and manufactures, and to reduce trade to little more than barter.

The principal incidents of note during this period were the attempts made to suppress piracy in New York and Delaware bays, the establishment of an excellent system of transportation between New York and Philadelphia, the location of ferries and post roads, the reclamation of waste lands, quite a liberal immigration of the Huguenot, Scotch-Irish, and German elements, and the chartering of both Princeton University and Rutgers College. The religious revival led by Whitfield followed, then the propagation of abolition doctrines by Woolman and the erection of barracks on account of the French and Indian wars. During all this period the steady if slow growth of the principles of independence, born of and fostered by England's most unwise policy, were increasing and unfolding.

At the opening of the Revolutionary war, New Jersey's sentiments were widely divergent. Three elements were prominent: one the Tory element; perhaps next in importance came the compromise party; the third and last—weakest in numbers—was composed of the influential men and capitalists who had an eye open to the increase of their private fortunes. Few, if any, at the commencement of the struggle, favored severing all relations with England. It seems more than passing strange, when the liberality and independence of the present day religion is considered, to know that in the early history of New Jersey, as well as of all parts of our country, government and religion were so closely linked that in this instance the members of the three different factions could be determined with almost unfailing certainty by know-

SINGER SEWING MACHINE FACTORY, ELIZABETH, N. J.

CITY HALL, ELIZABETH, N. J.

ing what was their church faith. The Tory party, for instance, included nearly all the Church of England's adherents, many of the non-combative Quakers and a few of the extremely rigid Calvinists that inhabited East New Jersey. Those who favored continual protest or compromise were mainly the Scotch-Irish, the conservative English Quakers and the majority of the less exacting Calvinists.

New Jersey's part in the Revolutionary war is one to which her people will ever point with pride. The memorable winter at Morristown, the hard-fought battles at Trenton, Monmouth and Red Bank are prominent in these annals, while the raids at Salem, Springfield, Elizabeth and in the Hackensack valley bore no unimportant part in the struggle for freedom. The retreat of Washington across New Jersey, so closely followed by Cornwallis, has made forever sacred this part of New Jersey soil, for no citizen can ever forget that it has been hallowed by sufferings and bravery, by courage in the midst of the most bitter discouragements and by almost unequalled hardships. The brave "New Jersey Blues" have won an honored place in history. This name was given to a battalion of 500 men raised in Springfield or its vicinity that were uniformed by the women of the town in homespun fabrics, the pantaloons being dyed blue. They were described as "the likeliest, well-set body of men who ever entered upon a campaign." The state has been sufficiently proud of the designation to continue to uniform her troops in this color, and they still claim and have accorded to them the honored title.

The Greenwich tea party deserves equally honorable mention with that of Boston. It was soon after the destruction of this valued but highly taxed commodity in Boston harbor that the East India Company, not having correctly estimated the calibre of New Jersey patriotism, loaded the big "Greyhound" with a cargo of tea bound for Philadelphia, and sent her up the Cohansey river. The tea was discharged at Greenwich and stored in a cellar just in front of the market grounds. In the evening about forty men, disguised as Indians, carried the tea into an adjoining field and set fire to it.

One principal reason, doubtless, why New Jersey bore so important a part in the struggle for independence was because the state lay between the two important cities of New York and Philadelphia. Throughout the entire struggle the Tory element was never suppressed. They were openly hostile to the patriots, and the cruelties practised by the "Pine Robbers," principally in the four counties of Monmouth, Burlington, Gloucester and Salem, caused the very name to be dreaded. The Quakers, or as they were then called, the Society of Friends, remained apparently neutral in accordance with the tenets of their faith, although it was openly known that many of them were hearty sympathizers with the revolutionary element.

New Jersey at the ending of the war was inclined to increase her grasp upon state rights and freedom. The Articles of Confederation were not sufficiently binding. In 1776, New Jersey had adopted a constitution which provided that all state officials should be elected by the legislature, and the legislature was to be chosen by voters possessing property qualifications. Although weak in some respects—numerically and financially—New Jersey's independent spirit was strong, as was evinced in the stand she took for "state rights." Indeed, she carried these principles to such an extreme as at one time to refuse to obey Congress, and even established a court of admiralty and coined money.

A convention was called at Annapolis in 1787 to revise the Articles of Confederation; New Jersey's representatives responded to the call and were present. The outcome of this convention was the present constitution of the United States, adopted in Philadelphia in 1787. While the famous "New Jersey Plan" failed of being carried, it proved to be the foundation upon which was erected the just measure of right by which in the senate of this nation every state is given equal representation according to population. So not only in the time of war, when enthusiasm is aroused and activity and sacrifice are called for, has the State of New Jersey shown herself equal to the occasion, but also when the wings of the bird of peace were folding that she might brood over the country, when just and equable laws were needed, when civil government had to be strengthened and established, just measures framed and wise counsels prevail, when liberty, the precious possession fought for and won, must be guarded and buttressed, New Jersey showed herself able to grapple with the problem, and she again made history.

The immediate effect of the adoption of the Constitution of the United States was quickly made manifest in New Jersey. This was evinced in one respect by the rapid growth of political parties. It was in large measure the spirit of

UNION COUNTY COURT HOUSE, ELIZABETH N. J.

DEY MANSION, LOWER PREAKNESS, N. J. BUILT IN 1740. WASHINGTON'S HEADQUARTERS IN 1780, WHEN THE CONTINENTAL ARMY WAS STATIONED AT TOTOWAR NEAR PASSAIC FALLS, N. J.

New Jersey and of New Jersey's prominent citizens that led to the election of Thomas Jefferson as president of the United States in 1800, and in 1801 to the election of Joseph Bloomfield as governor. Federalism in New Jersey received a blow that well-nigh crushed it in the death of Hamilton, killed by Aaron Burr in that world-famous duel at Weehawken. After these episodes the anti-Federalists were well-nigh supreme until the second war with England.

From the time of the adoption of the constitution, New Jersey turned her attention to state development on broad lines. The manufactures which England's unwise policy of repression had held in check began to take definite form. A number were established, which although in comparison with those of the present day would seem indeed insignificant, considering the time and circumstances, were noteworthy. In 1791, the Society for Establishing Useful Manufactures was formed at Paterson. Experiments were being conducted looking to the use of steam as a motive power, which we of the present day are trying to supplant with electricity. The Delaware and Raritan canal project was receiving attention, and improved highways were being constructed in certain sections of the state. In fact, there was a decided demand for better transportation facilities. They had their birth one may almost say, in New Jersey. The honor of securing from any state legislature the first railroad charter granted in America belongs to Col. John Stevens. But this did not take place until 1815, although his efforts to induce public interest in the enterprise had been unremitting for several years and perhaps we might say had culminated five years before in the publication of a pamphlet upon the advantages of transportation by rail and steam over that of canal. But as usual, the colonel was in advance of his time. As progressive as was New Jersey she did not care to fully enforce his project, so fell back upon canal transportation. But for a full account of this the reader is referred to an exhaustive article on "Railroads and Canals," by the Hon. Charles Bradley, published in this volume.

Then came America's second war with England. New Jersey did not so fully endorse this as she had the Revolutionary war. The Federalists, who constituted the "Peace Party," secured sufficient representation in the legislature to give them the balance of power, and a Federalist governor was elected. Yet even under these conditions the state furnished her full quota of troops and retained the place she had already won in the front ranks for patriotism.

One of the important measures for which New Jersey was earnestly striving during the period of peace was, it is strange to say, given a decided impetus and advance by the war. This was better transportation facilities. The necessity for quick transportation both for troops and supplies between Philadelphia and New York was quickly recognized, and the wagon roads between Bordentown and Perth Amboy, as well as between Trenton on her western boundary, were improved and the advantages of these routes demonstrated.

At the close of the War of 1812, until the Civil war was upon the country, New Jersey's advance in all departments was noteworthy, although the financial depressions of 1812 and 1837 had been seriously felt by her, and the Mexican war was also somewhat of a drawback. Yet the most enthusiastic of those who had prophesied in regard to her future in manufacturing, commerce, population, education and wealth were not disappointed, for she fulfilled more than they had dared claim or even hope she would. Railroads were rapidly built, ferries established, marsh lands were reclaimed, what had been forest solitudes became hives of industry, manufactures were firmly established, New Jersey's commerce was widely recognized, her inventive genius was encouraged, the public school system improved and extended (see the exhaustive article from the pen of our state superintendent, Mr. Charles J. Baxter), churches increased, the present great banking interests of the state were founded, post-offices were opened and newspapers—always the advance agents of progressive civilization—were printed. The state constitution was adopted in 1844, and the legal position of married women was better defined

Then in 1860 came the Civil war. Every state north of the Mason and Dixon line, except New Jersey, had several years before freed her slaves; but nearly 250 negroes were still held in bondage in brave little New Jersey, a state that had so heroically striven for her own freedom. This was probably the cause of the strong "anti-war" party that formed at the outbreak of the rebellion; yet when the first call for troops came from the national government, New Jersey responded with both men and money. Eighty-eight thousand three

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hundred and five enlisted men went forth from this state, while $2,894,385 was the amount she paid toward the supply, support and transportation of her troops. Well did she sustain the reputation for bravery earned in the Revolutionary days. The descendants of the heroes who fell at Monmouth and Trenton dropped by the waysides and upon the battlefields of the South. Monuments erected to the bravery of New Jersey troops and in commemoration of their heroism are scattered over the places where our heroes fell and in the various towns of the state.

Since peace was declared New Jersey has turned her attention, as she did in the interim between the Revolutionary war and the Civil war, to progress in every line of peaceful industry. Her manufactures are famous the world over, her products are exported to every part of the civilized world. New Jersey is a favored state of residence, and within her borders some of the wealthiest men in these United States have reared palatial homes; here are the more modest dwellings of the less wealthy, but equally enthusiastic in their love for "home" and all the word my mean; educational institutions of all kinds have been endowed and supported. In agriculture and horticulture she ranks first; pleasure resorts line her coasts and beautify her mountain tops; her mining industry has attained fair proportions, and her fisheries are famed the world over. In fact, New Jersey is rich in natural opportunities, in history, in commerce, in manufactures, in wealth in educational facilities, and more than all else in the noble spirit that has ever animated her people.

NEW JERSEY STATE CAPITOL

New Jersey State Capitol

An act of the legislature, approved in November, 1790, established the state capitol at Trenton. Messrs. James Copper, Thomas Lowery, James Ewing, Maskell Ewing, George Anderson, James Mott and Moore Furman were appointed commissioners to select, purchase or accept as much land as was needed and to erect thereon suitable buildings for the use of the legislature.

The committee selected the present site, containing some three and three-fourths acres of land, located on West State street—then Second State—and Delaware street, paying therefor £250 5s., or about $1,250. On this plot they erected a plain, unornamental and unartistic building of rough cast plaster at a cost of nearly £4,000, or about $20,000.

In 1795 an additional building, to be used as the office of the secretary of state and for the preservation of public records, was approved by act of the legislature. More than £620, or about $3,100, was expended on the construction of it.

In 1806 the legislature appointed commissioners to make certain specified repairs, to provide and hang a suitable bell, etc. For a number of years this bell was rung at the hour of all meetings. It was later discarded, and the American flag now floats from the tall staff whenever the legislature is in session and upon all holidays and state occasions.

In 1848 the front of the building was remodeled, neat porticos were erected over both the front and the rear entrances, two additions were built, one for the use of the clerks of the chancery court and the other for the use of the supreme court, and the rotunda was erected. The grounds were also at this time enclosed by a neat fence, they were graded and laid out, and shade trees were planted. All this at a cost of $27,000. The commissioners in charge of these matters were Messrs. Samuel R. Gummere, Samuel R. Hamilton and Stacy A. Paxton.

Appropriations were made by the legislature in 1836, 1864 and 1865 for the erection of additions to be used for the state library, executive chambers, etc.

In 1871 Messrs. Charles S. Olden, Thomas J. Stryker and Lewis Perrine were appointed by the legislature commissioners to look after the building of a suitable addition to be used as apartments for the senate, assembly, etc. Fifty thousand dollars was appropriated for this purpose, and when the legislature convened the following year the buildings were ready for occupancy.

In this year, 1872, $120,000 was appropriated for completing the building, $3,000 for fitting up the executive chamber, $4,000 for fitting up the chancery and supreme court rooms, and $2,000 for fitting up the offices on the first floor of the east wing.

In 1873, $43,000 was appropriated by act of the legislature to be expended for alterations and improvements upon the front of the building, completing the repairs already under way and fitting up the library.

In 1875 the legislature appropriated $15,000 to be expended in building a new three-story front to the building, for fitting up offices on the second floor for the clerks of the court of chancery and the supreme court, for providing a suitable museum for geological specimens and for the battle flags of New Jersey volunteer regiments carried in the Civil War.

In 1885 the front portion of the building was destroyed by fire and the legislature appropriated $50,000 for rebuilding it. In the following year, 1886, an additional appropriation of $225,000 was made.

Three years later, in 1889, the new building was completed. The Renaissance style of architecture has been followed. Rectangular in form, the building has 160 feet frontage, is 67 feet deep, 3½ stories in height, with a rotunda 39 feet across. This rotunda connects the new section of the capitol with that portion of the old that was left standing.

The walls are of solid, fireproof brick, faced wth Salem Oolitic from Indiana; the foundations and trimmings are of New Jersey freestone, as are the door heads and portico. The latter, with the balcony, are supported by massive pillars of polished granite.

The apartments used for offices are spacious and elegantly fitted up. A fire proof vault has been built in every one. These offices are on the first and second floors. The state library occupies the entire third floor. The apartments

NEW JERSEY STATE HOME FOR DISABLED SAILORS KEARNEY, N. J.

that were formerly used for this purpose have been transformed into offices for the attorney-general, state superintendent of public instruction and commissioner of banking and insurance. The geological museum and state offices have been located in the new upper story.

In 1891 the legislature passed a joint resolution that provided for the erection of a new assembly chamber, and for necessary accommodations for the supreme court and the court of errors and appeals, or for other state officers. The assembly chamber was built on the site of the former but very much larger. It has a frontage, on Delaware street of 120 feet and is 75 feet deep. The architecture is harmonious with that of the main building. The interior is beautifully finished in Trenton tile, quartered oak and Italian statuary marble. It required an appropriation of $140,500 to cover its expense. The improved steam heating and ventilating systems cost $25,000.

The building, with various apartments for use as a consultation room for the judges of the supreme court and the court of errors and appeals, the governor's private room, the museum of the geological survey and other necessary offices, was erected at an expense of $34,500.

In 1900 the legislature appropriated $96,000 for additions and alterations to the capitol. This included an electric light apparatus that cost $23,000.

New Jersey now has a state capitol which, while far below that of some other states in cost, is yet a commodious and handsome structure, beautifully appointed and elegantly fitted up with every convenience and with the latest improvements. Although built at various times, a charming architectural harmony has been preserved. The grounds are large and artistically laid out. Some of the wisest and most beneficial laws that govern any state in our Union have been framed within the walls of New Jersey's capitol building at Trenton.

A new senate chamber was completed in January 1904, and it is not only architecturally architecturally beautiful in design but affords ample accommodation for that branch of the legislature.

STATE NORMAL SCHOOL, TRENTON, N J.

The New Jersey State Normal and Model Schools

By James M. Green, Ph. D.

The New Jersey State Normal and Model schools were established by an act of legislature in 1855. This act was the outgrowth of an influence in favor of special training for teaching that had its institutional origin in Rheims and Halle and that was slowly multiplying pedagogical schools in the leading countries of Europe and had taken root since 1839 in Massachusetts, New York, Connecticut, Michigan, and Pennsylvania of our own country.

The agitation for the establishment of a normal school in New Jersey began to take form as early as 1828. It was prompted by the incompetency of the teachers and the weakness of the schools generally. It was largely promoted by a few men representing business and the several leading professions. Prominent among them were President John Maclean, of Princeton College; Judge Richard S. Field, of Princeton; Principal John T. Clark of New Brunswick, and Editor David Naar, of Trenton; Principal David Cole, of Trenton; State Superintendent John H. Phillips and Governor Rodman M. Price. The instrumentalities used were essays, editorials, addresses, teachers' institutes and conventions.

The act creating the school appropriated $10,000 for maintenance, but nothing for the erection of buildings. The school was to be governed by a board of trustees appointed by the Governor, two from each of the five congressional districts.

The board assumed as its first important duty the securing of a suitable location and building. It was thought that the desirability of having it near at hand would cause a number of municipalities to offer inducements for its location, consequently word was sent out inviting propositions.

Proposals were received from Paul Farnum, of Beverly, offering the use of a suitable building and of a suitable dwelling house for the principal of the school for five years, free of expense.

The citizens of Orange offered to present a building and lot and the use of a valuable library and gratuitous lectures on music, architecture and physiology.

The citizens of New Brunswick offered a lot of land and $8,000 toward the buildings; also mathematical instruments and other apparati for the use of the school, and the delivery of free courses of lectures in their several departments by the professors of Rutgers College.

Individuals of Princeton and Pennington offered building lots.

Propositions made by the people of Trenton were, in view of all considerations, deemed of greater advantage than any that were offered elsewhere; hence it was decided to locate the school at this point.

The board thereupon agreed to lease from certain citizens of Trenton a lot two hundred feet square on Clinton avenue; a school building was erected thereon at a cost not to exceed $17,500, the same to be practically rent free for five years, at the end of which time, or at any date previous, the state would have the privilege of purchasing the property at its actual cost. A condition of the lease required that the plans for the building should have the approval of the board. This condition not only anticipated the purchase of the buildings by the state, but also the influence of the buildings on subsequent school architecture.

The corner-stone of the first or normal school building was laid with appropriate ceremonies by Governor Price, October 9, 1855. The building was dedicated July 17, 1856.

Immediately after it was decided to locate the normal school in Trenton, Paul Farnum proposed to establish at Beverly a high class school preparatory to the normal, and offered to erect a building and present it to the state with an endowment of $20,000, on condition that the state would assume the care of the school under the State Board of Education and annually appropriate a sum equal to the interest of the fund invested. This proposition was accepted and the building was erected and dedicated October 8, 1858.

When the new normal school building was opened two rooms were set aside in it for a model school designed for observation and training on the part of the normal pupils. The enrollment in this school grew so rapidly that it

PRIMITIVE SCHOOL

WASHINGTON SCHOOL, NEW BRUNSWICK

soon became apparent that it would be necessary to have a separate building for it. Accordingly, in 1857, a number of citizens proposed to purchase ground adjoining that on which the normal school was located and erect a suitable building, the total cost not to exceed $30,000. A plot of ground 300 by 220 feet adjoining the grounds of the normal school was secured, a building erected on plans approved by the board of trustees and dedicated in 1858.

In 1865, authorized by an act of the legislature, the state purchased the two buildings and their grounds, which had cost their promoters not less than $51,000, for the sum of $38,000.

Previous to 1864, the students from a distance attending the schools were obliged to secure board at private houses in the city. This custom was attended with a great deal of inconvenience and uncertainty. During this year a number of citizens formed an association and opened a boarding hall on the grounds opposite the schools. It was incorporated by an act of the legislature passed March 22, 1865, under the title of the Normal School Boarding House Association. This company erected a building on the opposite side of the street from the schools for female pupils, where board could be procured, practically at cost. The board of trustees agreed to pay this corporation $1,250 per annum for four years, which sum or sums should go on account of the purchase money if the state at any time during said period should elect to purchase the said building at cost, and in addition to this they agreed to pay the association a further sum per annum equal to 6 per centum upon the cost of the buildings and the expense incurred in keeping them in repair. The trustees purchased the property belonging to this association by authority of an act of the legislature passed February 27, 1867, for the sum of $32,000, of which sum $30,000 of the total amount less what had been paid to this company in annual installments was left on mortgage.

In 1873, under authority of a supplement to the act of 1867, the board purchased additional property, including a boys' hall, for $39,000, the entire amount being secured by mortgage. Thus it appears that the total purchase price of the boarding hall building and grounds was $71,000. The trustees assumed this debt, together with the furnishing of the halls, and began its gradual reduction by such sums as they might save annually from their receipts from tuition in the model school and from room rentals. In 1879 the debt had been reduced to $30,000, when, by an appropriation made by the legislature, it was cancelled. Thus, for $68,000 direct appropriation, the state became possessed of a school and boarding hall property that had cost the energetic friends of these institutions $122,000, and Trenton had redeemed its pledge in inducing the location of the institution within its boundaries.

While the school buildings met the demands of the time in which they were built, they were not equipped with laboratory or manual training facilities in keeping with the development of educational thought and practice, and with the change of administration in 1889, it became apparent that if changed educational conditions were to be met it would be necessary to increase the buildings. This matter was presented to the legislature of 1890, and an appropriation of $40,000 was granted to erect a building connecting the normal and model buildings, in which new structure might be located an auditorium and suitable modern laboratories for the various branches of science and manual training; also a library. Ground was broken for this new structure October 28, 1890, and the new building was completed in time for the opening of the fall term of the following year.

The legislature of 1891 granted an appropriation of $8,000 for furnishing this new building. The legislature of 1893 appropriated $12,000 for the building of a new gymnasium, and the legislature of 1894 appropriated $10,000 for the furnishing of this new gymnasium and dividing the former gymnasium into classrooms and furnishing these rooms. These latter appropriations brought the total cost to the state for new buildings and grounds up to $138,000.

The board has each year, in calculating the expenses for the boarding halls, allowed a small margin as protection against a shut down in case of the breaking out of contagious diseases. When such a misfortune has not visited them they have appropriated this small margin to the development of the halls and have thus added one new wing and purchased a principal's residence and a house and lot adjoining the grounds for the still further development of the plant. The school buildings have been kept in repair by the annual appropriations for this account by the legislature, the account in the year 1897 including $25,000 for an improved system of ventilation, and in 1902 $10,000 for an independent electric lighting

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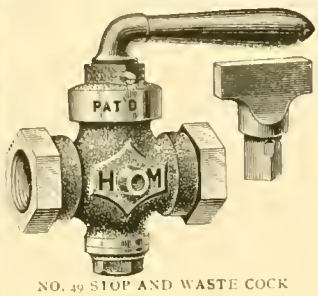

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plant. The boarding halls heretofore have not been large enough to accommodate the proportion of boarders to that of day students in the school, and for some ten years the state board has rented houses to increase its accommodation. The legislature of 1904 appropriated $40,000 for the building of an additional wing to the halls. The plans for this increased building have been adopted and the building is near completion. It is expected that when this new structure is finished the arrangements for accommodating a balanced proportion of day students and boarders will have been established.

The total present valuation of the property due to the state appropriation, the careful economic management of the board, and the gradual advance in the value of real estate, the property being located in what is now nearly the geographical center of the city, is estimated at $475,000.

The normal school was opened Oct. 1, 1855, in a dwelling house rented temporarily for the purpose. The registration at the beginning was 15 pupils which registration increased to 43 during the year. The enrollment thereafter showed a fairly steady increase until it reached between two hundred and three hundred in 1870. It then held an average of about 250 until 1889, when it began a very rapid rise, reaching 737 in 1898.

Until this time the entrance examinations had been held at the time of the opening of the term, making it difficult to regulate the number that could be received in the school. After this date the entrance examinations for the fall term were fixed in June and the standard of the school sharply raised, gradually reducing the annual enrollment to its present figures, about 525, a number the school can very readily accommodate.

The school has graduated in all 3,494 teachers, about 1,600 of whom are still teaching in the state. There should be added to this number quite a good many persons who entered the school and were obliged to leave before they could complete the full course, but who have made successful teachers. The graduates are represented in all grades of positions including county and city superintendents, principals, heads of departments, specialists and grade teachers.

The founders of the school defined its purpose to be twofold, namely, to furnish a high education for its pupils and to train them in the art of teaching. This definition was the was the expression of a very clear estimate of the practical needs of that early time. The educational standards of the state were low and desultory. If these standards were to be raised it was necessary that the work of instruction should be in the hands of those who were themselves educated. Academies of the state were scarce; they furnished a very meagre education, and the public schools offered only the most rudimentary beginnings. The board of trustees and the faculty seemed to understand the force of suiting the institution to the needs of its time, rather than to some fanciful deal of what a professional school should be.

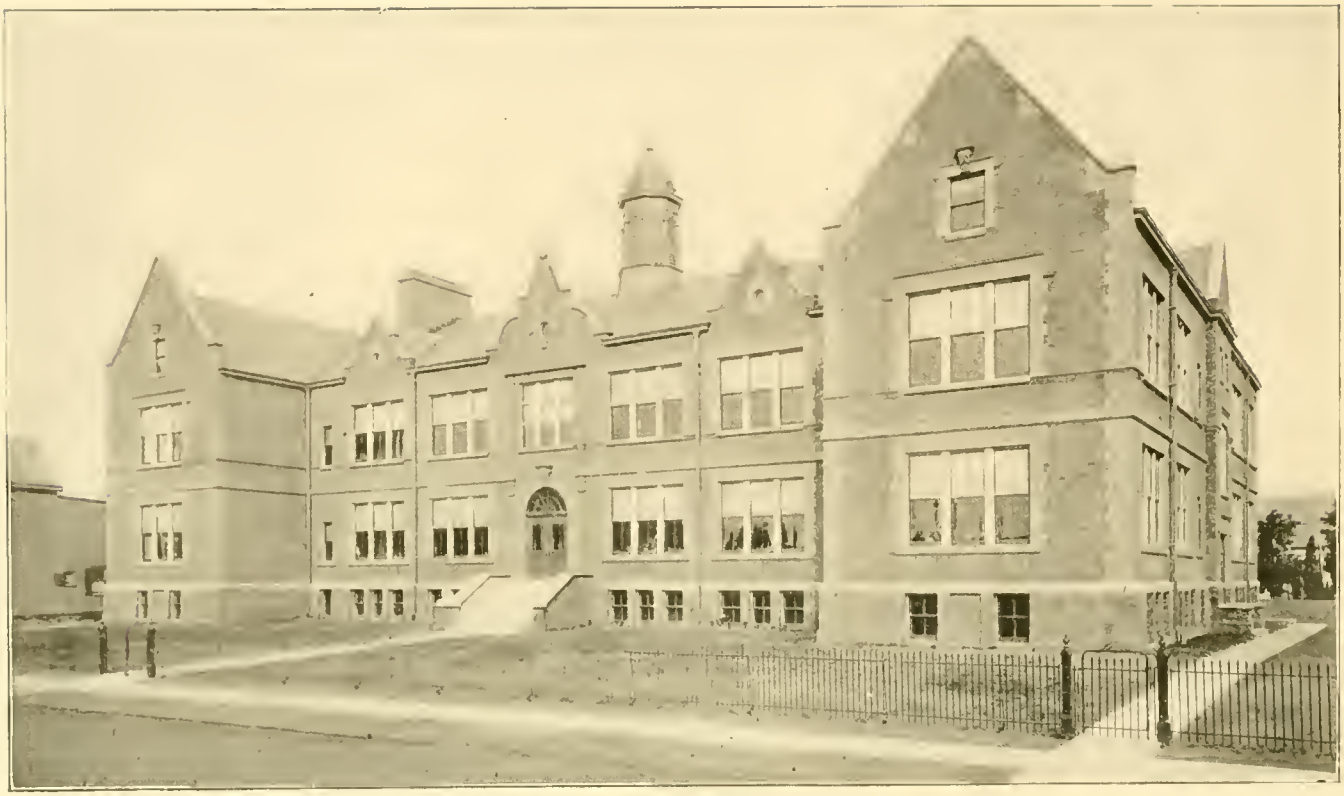
The need for scholarships was so emphatic that for a term of years it practically crowded out very much of method work, but with the increased efficiency of the public school system it became possible in due time to restore the pedagogical phase to its proper place. This restoration was made at the time of the beginning of the increased attendance in 1889.

The board have constantly set as the ultimate standard of admission to the school graduation from a full high school course, but the territorial conditions of the state and the school conditions were such that it was necessary to work to this standard slowly if a large portion of the territory would not be alienated.

At the present time two courses of study are maintained: the one designed for graduates of full four years' high school courses; the other for those who in the more irregularly graded high schools of the townships have done the equivalent of three years of high school work. This latter class must reach the same standard as those of the two years' course upon graduation. The school further offers an advanced course of one year and a special kindergarten course. Each of the courses has in it a certain number of required units, also a certain number of elective units, thus affording an opportunity for a pliability that cultivates specialization. It has among its graduates, for instance, special teachers of drawing, music, manual training, etc.

At the beginning of the school's history diplomas were not granted until the graduates had taught successfully for six months. This teaching might be done either before the person entered the normal school or after her graduation.

In 1867, a temporary license for one year, good in any part of the state, was granted upon graduation; but when the diploma was given,



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the temporary license was made a third grade state certificate good for four years.

In 1871 a state certificate was granted with the diploma on examination for graduation. During this year the curriculum was divided into two courses, one known as the elementary or two years' course; the other as the advanced state certificate were granted to all who had or three years' course. In 1873 a diploma and state certificate were granted to all who had given satisfactory evidence of success in practice teaching in the model school. In 1874 the third grade state certificate was granted to the graduates of the elementary course, and a second grade state certificate to graduates of the advanced course with the diploma of the school. In 1886 the rule was passed renewing the certificates upon their expiration without examination.

In 1890 the elementary or two years' course was abolished, and the second grade state certificate, good for ten years and renewable, was granted with the diploma. In 1895 a life certificate was granted upon graduation. In 1899 the school returned to the custom of granting a certificate good for ten years, upon graduation, but which certificate might be renewed for life after two years of successful experience. This system is still in vogue, except for those who graduate from the fourth year course. To these latter a life certificate is given upon graduation.

The certificates of the school are licenses to teach anywhere in the state, and are endorsed by the different states of the Union, practically without exception, so that they are in reality certificates good to teach anywhere in the country.

Great care has been exercised in choosing the teachers for the normal and model schools. The faculty now numbers 54, and has on its roll graduates of 16 different colleges and universities, 14 different state normal schools and residents of 9 different states and representatives of four countries. A number of the members of the faculty are authors of prominence and a variety of works. Many of its members are known as essayists and speakers at institutes and teachers' conventions. The faculty have alway made it a practice to take an active part in all that tended to build up the educational system of the state as a whole as well as in that which related purely to the normal school.

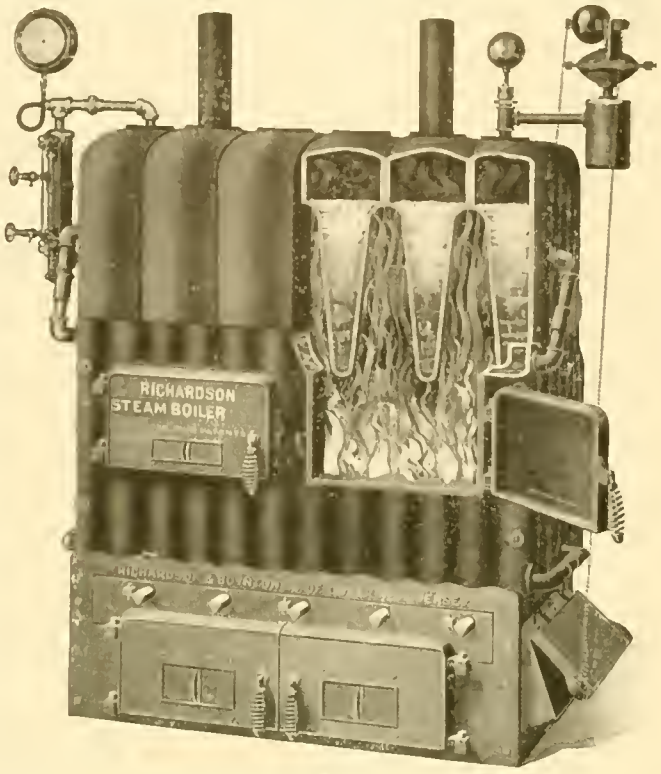
The annual cost of maintenance, placed at $10,000 in the beginning, is now $50,000 plus the earnings of the model school, which, with an enrollment of about 575, are at present close to $26,000.

The educational motto of the school is the best selection of subject matter considered from the educational point of view as well as from its actual relations to practical life problems, and the best adaptation of this matter to the mental conditions of the pupil. It can be readily seen that the fulfillment of this motto necessarily calls for high standards of education on the part of the students, and a thorough and constant investigation into the needs of the state, a standard which must inspire the confidence of the commonwealth.

The model school may be described as the handmaiden of the normal school. It is the embodiment in practice of that which is taught as theory in the normal. From the beginning it assumed a higher standard than that usual in the country to institutions of this class, namely, a standard extending from first primary to college, preparation, or, in other words, including a full, high school academic course. The purpose of this school was regarded as twofold; the first being its direct influence upon the normal pupils, and second its example in the school organization of the state. Hence, from the first the school has maintained a standard which has commanded the respect of the people and the patronage of a large territory. It soon practically drew to itself all the pay-school patronage of Trenton and the immediate vicinity and became self-supporting; it remains so to the present time. Its graduates have entered with distinction upon the various experiences to which they have gone. Seventy per cent. of those entering college within the past fifteen years have taken honors, and those who have entered other pursuits have done as well.

The schools as a whole are complete in their institutional life.

That experience which comes to one who goes away from home to attend a college or seminary is the experience which comes to those who attend this institution. The fact that the normal students are practically paralleling college life in the point of maturity for two and three years and that the boarders in the model school are paralleling the educational experience of our leading seminaries, makes an institutional experience which is widening, fully akin to that so highly prized in any of our institutions of broader learning. These schools are strongly entrenched in the affections of the commonwealth, and as they have



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Normal School faculty: James M. Green, Ph.D., principal; Austin C. Apgar, vice-principal, instructor in botany and zöology; Jean Broadhurst, B. S., instructor in botany and zöology; Kate D. Stout, training teacher; Levi Seeley, Ph.D., instructor in history and science of education; Elias F. Carr, Ph.D., instructor in higher mathematics; Lillie A. Williams, instructor in psychology; Harriet Allen, instructor in psychology and English; William N. Mumper, Ph.D., instructor in physics; M. Elizabeth English, associate instructor in physics; Margaret Baxter MacDonald, B. S., Ph.D., instructor in chemistry; Clara Hamilton, associate instructor in chemistry; Mary C. Field, instructor in drawing; Caroline McGuire, instructor in reading and English; Sarah A. Dynes, Ph.B., instructor in history; Sarah J. McNary, Ph.D., instructor in English; M. Frances Freeland, associate instructor in English and history; Susan A. Reilly, instructor in geography; Dickerson H. Farley, instructor in penmanship and bookkeeping.

Model school faculty: Ray H. Whitbeck, B. A., supervisor in high and grammar departments, instructor in English and public speaking; Sarah Y. Ely, supervisor in high and grammar departments, instructor in mathematics; Eunice E. Lippincott, supervisor in primary department, instructor in D grade; Melina A. Bosworth, instructor in history and literature; Alice L. Brewster, B. A., instructor in literature and history; Ottilie P. Staber, instructor in drawing; Dickerson H. Farley, instructor in penmanship and bookkeeping; J. Clarence Smith, B. A., instructor in Latin and Greek; Wandell B. Secor, B.A., instructor in mathematics; Elizabeth B. Johnson, instructor in English; M. Lillian Newman, instructor in geography and associate perceptress; Eleanor B. Parmenter instructor in history and reading; Emma M. Haigh, instructor in German; Marguerite Magee, instructor in French; Sarah R. Budd, B. A., instructor in Latin and English; M. Frances Freeland, instructor in reading and history; Charles A. Burt, B. S., instructor in manual training; Jean Broadhurst, B. S., instructor in botany and zöology.

The Swamp Angel

The Swamp Angel, located at the northeastern corner of the campus of the state schools, is an eight-inch two hundred pound Parrott rifle gun, which was cast at the West Point foundry in 1863 and used in bombarding the city of Charleston during the Civil War.

The Federal army, from its position in the harbor, was unable to reach the city wth a shell and it was to accomplish this purpose that the gun was set up in a marsh in a position about 7,900 yards from the city. It was at once christened by the soldiers "The Swamp Angel." On the thirty-sixth discharge, the breech of the gun, just behind the vent, blew out of its jacket, thus rendering it useless. It was sold for old metal, sent to Trenton to be melted, where it was identified and set upon a granite monument at the location before mentioned.

The construction of this battery was considered one of the most important engineering operations performed by either army during the war, and the old gun is one of the most conspicuous and interesting objects of historic Trenton. Standing as it now does on the beautiful grounds of the State Normal School, it is a constant reminder of one of the events in whose light crafts might be in danger of recent history.

A SWEET POTATO FIELD IN GLOUCESTER COUNTY

HARVESTING POTATOES. MONMOUTH COUNTY

Lighthouses

It is impossible to determine when lighthouses were first employed, but we know that at least three hundred years before Christ, Ptolemy Soter constructed one at Alexandria, Egypt. The earliest lighthouses, or perhaps we should say the embryo lighthouses, of which we have any record, were simply beacon fires built on a point of land as a guide to friends whose light crafts might be in danger of wreckage. Later towers were erected on which fires were kept burning.

After a season the beacon fires built by individuals for the guidance of their friends at sea were followed by seacoast villagers, making the matter a municipal affair. An old record of the town of Hull, Mass., shows that in 1674 one shilling and six pence was paid by the town "for making balls of pitch and ocum" to be used in lighting the beacon.

Later the individual states took charge of the matter. In 1789 the national government brought within its jurisdiction all the lighthouses on the coast.

The first act of Congress relating to lighthouses was passed August 7, 1789. It provided "all expenses shall accrue from and after the 15th day of August, 1789, in the necessary support, maintenance and repairs of all lighthouses, beacons, buoys and public piers placed, erected or sunk before the passng of this act, at the entrance of or within any bay, inlet, harbor or port of the United States, for rendering the navigation thereof easy and safe, shall be defrayed out of the Treasury of the United States."

Seven months later, March 26, 1790, the same law was rëenacted, but with a proviso that "none of the said expenses shall continue to be so defrayed by the United States after the expiration of one year from the day aforesaid, unless such lighthouses, beacons, buoys and public piers shall in the meantime be ceded to and vested in the United States by the state or states respectively in which the same lie, together with the lands and tenements thereunto belonging and together with the jurisdiction of the same."

New Jersey gave to the federal government in the year 1800 a plot of nearly four acres of land in Monmouth county on which the famed Sandy Hook lighthouse was erected; and in speaking of New Jersey's prominence in the matter of lighthouses upon her coast, we must not forget that the electric light of Navesink, which is 53 feet high and erected on land 195 feet above sea level, is the first light from these United States of America that welcomes the ocean voyager whose good ship is making for the harbor of New York.

It has been well said that a maritime nation's standard of civilization may be gauged by the care with which it lights its coast. In this important particular the United States, in its lighthouse administration, probably leads all other nations. Ever since the erection and care of these important safety beacons have been in charge of our government the support has been generous. In fact, the government believes that all along her coast lines lights should be set so closely together that the areas of visibility shall overlap, so that a vessel near the coast need never be out of sight of a light. The propheey has been made that such will be the case, and it has excellent prospect of fulfillment, for it is probable that the day will come when every foot of our sea coast will be defined from end to end by a band of light at night and well marked in the day by beacons and buoys.

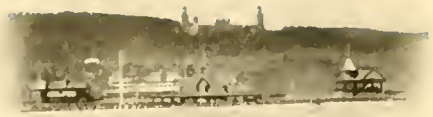
Congress has been liberal in her maintenance of aids to navigation; in a single session the government has appropriated sufficient money to build 40 new light and 10 fog signal stations.

Our lighthouse system is now in charge of the Department of Commerce and Labor of the government. The Lighthouse Board consists of the Secretary of Commerce and Labor, who is *ex officio* president of the board, three officers of the United States navy, three officers of the United States engineering corps and two civilians who must be scientific men of high attainment.

This board has found by experience that the most reliable keepers for lighthouses are found among the ranks of veteran sailors or soldiers. These men have been inured to hardships and perhaps better than any other class understand the necessity for safely guarding human life.

But all beacon lights are not erected on lighthouses, which are built either on points

FIVE-FATHOM BANK LIGHT VESSEL



HIGHLANDS OF NAVESINK

TUCKER BEACH LIGHTHOUSE

BARNEGAT BAY LIGHTHOUSE

ABSECON LIGHTHOUSE

LUDLAM BEACH LIGHTHOUSE

SHIP JOHN SHOAL LIGHT STATION

CROSS LEDGE LIGHT STATION

of land, occasionally on a rocky nearby island, or in the water on submerged reefs or shoals. Light vessels are also used, but stationed at points where it would be impracticable or impossible to build lighthouses. These are usually located far out at sea or near the entrance to some harbor which vessels must safely find entrance to, or whence they must secure safe departure. These vessels are of special construction; the hulls are built unusually strong, as are the tall masts from which the beacon lights are suspended. Whenever possible they are provided with fog signals, which, at least in the United States, are usually steam whistles. In addition to this a loud tone bell is always a part of a light vessel's equipment—one that can be rung by hand in case the more powerful signal should be disabled.

A buoy, a floating body, as its name would indicate, is used to mark channels and dangerous submerged points. It is made of wood or iron and in the latter case is hollow. Buoys are of various shapes, sizes and colors: a starboard buoy, or one which a vessel must pass on the starboard (right-hand) side upon entering a port, is painted red. A port buoy, or one that a vessel must pass on the port side, is black; then we have buoys painted in stripes, red and black, horizontal, marking danger obstructions; black and white perpendicular stripes, mid-channel or fairway buoys; lighted buoys; whistling buoys and bell buoys.

A bell buoy sounds its warning notes with greater or less frequency according to the violence of the waves, their motion causing the clapper to vibrate.

In lighthouses the quality and kind of light is determined both by the distance from which it is to be seen and the character of the light which is to be shown. The ocean mariner coasting along our shores is liable to determine by the light shown in what part of the United States he is.

When the United States took from the various states of the country the lighthouses into its own keeping, there were 55 lighthouses on the coast of the United States; now there are 811—about one-eighth of all the lighthouses in the world. One of the principal lighthouses of the world was over twenty-five years in building.

In 1791 the yearly appropriation by our government was $22,591; 99 years later, in 1890, it had increased to $3,503,994.

The first two lighthouses in this country were illuminated by tallow candles; then fish oil was used in spider lamps, with solid wicks, suspended from the roofs by iron chains; sperm oil was introduced in 1812; colza or rape seed oil in 1862; lard oil was first employed in 1867 or 1868, but coal oil has been in general use in this country since about 1878; gas is used only to a limited extent.

There are several varieties of lights in our service, those of the first-class being established to give warning of the approach to land, and the others being subsidiary, to mark headlands and shoals in passing rivers and lakes. There are lights of different characteristics used to enable mariners to distinguish lighthouses apart; for a similar reason light vessels have their numbers and names painted on their sides.

The rules are that the lamps of the lighthouses and light vessels must be lighted punctually at sunset, daily, and must be kept burning brightly, free from smoke and at their greatest attainable heights, during each entire night, from sunset to sunrise. Lighthouses, light vessels, buoys, beacons, fog signals, machine shops and other property controlled by the lighthouse board are worth between $40,000,000 and $50,000,000. The whole of this is a free gift of the American people to the world. Each keeper is required to enter in a journal daily all events of importance occurring in and near his station, and also to keep a table of the expenditure of oil and other stores.

Thus our government protects as far as possible with its warning and helpful signals and lights from the danger of its rocky coast and the perils that always attend those who sail upon the waters. Probably no other coast varies as much in formation as that of our our country. Among the lighthouses and lightships of New Jersey are the following:

Barnegat Light Station: Tower, 150 feet high. A first-order flashing white light: interval between flashes ten seconds, visible nineteen miles. South side of Barnegat inlet, on the north end of Long Beach, New Jersey.

Tucker Beach Light Station: Tower 46 feet high, on top of dwelling. A fourth order fixed with light, varied by red flashes. The light shows fixed white for 1 minute, followed by six consecutive red flashes at intervals of 10 seconds, visible 12½ miles. Near entrance to Little Egg Inlet, New Jersey.

Absecon Light Station: Tower 159 feet high; two dwellings. A first-order fixed white light, visible 19 miles. On the south side of Absecon inlet, Atlantic City, N. J. There

HEREFORD INLET

NORTHEAST END LIGHT VESSEL

CAPE MAY LIGHTHOUSE

ABESCON LIGHT-HOUSE

LIFE SAVING CREW

is a life-saving station there. Note: The weather bureau maintains a station near this light for the display of signals.

Ludman Beach Light Station: Light 29½ feet high, on dwelling. A fourth-order light, flashing white every 15 seconds, visible 11½ miles. On Ludman Beach, Sea Isle City, N. J. Vessels bound down the coast should keep this light in sight to clear the shoal off Townsend inlet. There is a life-saving station 340 feet southwest from the lighthouse.

Hereford Inlet Light Station: Tower, 49½ feet high, on a dwelling in a grove. Three tall chimneys on dwelling. A fourth-order fixed white light, visible 12½ miles. South side of Hereford inlet, on the north end of Five-Mile Beach, seacoast of New Jersey. There is a life-saving station about three hundred feet north of the lighthouse. The weather bureau maintains a station near this light for the display of day signals only.

Northeast End Light Vessel, No. 44: Schooner rigged; cagework daymark surmounted by ball, at fore-masthead. Two fixed lens-lantern lights; one on foremast, red, and one on mainmast, white, at half-mast high, and lower than red light; 11½ and 10 miles, respectively. Moored off the northeast end of Five-Fathom Bank. Vessels of deep draft should pass ta eastward of this light vessel. The fog signal is a 12-inch steam whistle; blast 4 seconds; alternate silent intervals 5 and 107 seconds.

Five-Fathom Bank Buoy: First-class nun. On Five-Fathom Bank and near to 18-foot hump.

Five-Fathom Bank Light Vessel, No. 79: Flush-deck, steel, steam vessel, schooner-rigged; hoop-iron daymark at each masthead. Two fixed white lens-lantern lights, visible 12½ miles. Moored off the entrance to Delaware Bay, about 6¼ miles south-southeasterly from the shoalest part of Five-Fathom Bank. The fog signal is a 12-inch steam whistle: blasts, 4 seconds; silent intervals, 56 seconds.

Cape May Light Station: Tower, 159 feet high, two dwellings. A first-order flashing white light; intervals between flashes, 30 seconds; visible 19 miles. On northeast side of entrance to Delaware bay, near the westerly extremity of Cape May. There is a life-saving station 780 feet southeast from the light tower.

The Weather Bureau maintains a station near this light for the display of signals.

Cross Ledge Light Station: Light, 52 feet above sea, on dwelling with Mansard roof, on granite pier. A fourth-order light, fixed during periods of 17 seconds; separated by eclipses of 3 seconds' duration. White to the westward of north by west three-quarters west and south-south-east seven-eights east (bearings from seaward), and red throughout the remaining arc; visible 12½ miles. On lower end of Cross Ledge shoal, Delaware bay, east side of channel. Fog signal is a bell struck by machinery every 10 seconds.

Ship John Shoal Light Station: An iron cylinder surmounted by an octagonal dwelling, one story, with Mansard roof and lantern; light 50 feet above sea. A fourth-order light; fixed during periods of 10 seconds separated by eclipse of 5 seconds' duration. White to the westward of north-northwest 9-16 west and southeast 13-16 south (bearings from seaward); red throughout the remaining arc; visible 12¾ miles. On Ship John Shoal, east side of channel, in the Delaware bay, in 8 feet of water, low tide. Fog signal is a bell struck by machinery; three blows in quick succession every 45 seconds.

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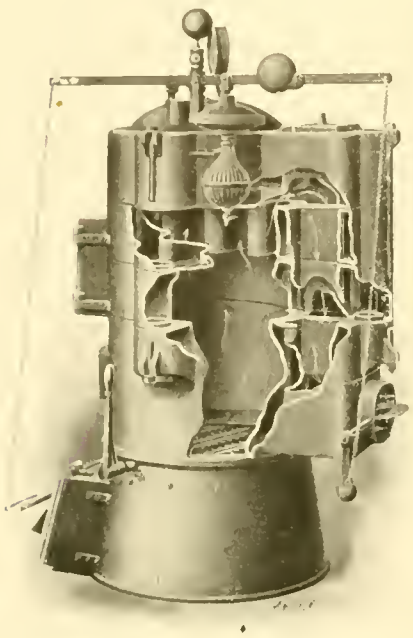

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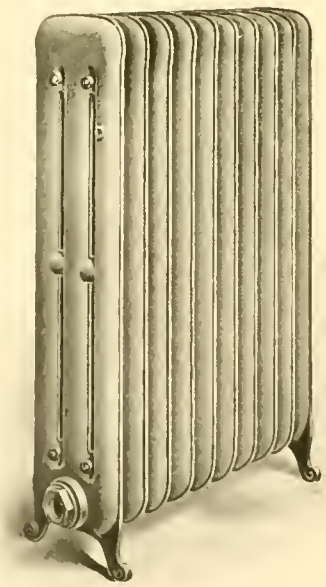

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The Life Saving Service in New Jersey

By General S. I. Kimball

It is a matter of pride to the citizens of New Jersey that the first boathouses established for life-saving purposes by the United States government were located upon the shores of their state, and that prominent men of the state in official positions were among the foremost in advocating efficient protection of life and property from shipwrecked vessels, and have always been found among the most earnest co-workers for the improvement of the service.

Prior to 1848, various local associations for life-saving purposes were formed in some of the states, most of them short lived. The Massachusetts Humane Society, however, which was organized in 1786, established houses of refuge in 1789 on portions of the Massachusetts coast where the shipwrecked might find shelter in case they should be so fortunate as to reach the land. In 1807, the same society began placing lifeboats on portions of that coast, the first having been located at Cohasset.

This society is still in existence and maintains a considerable number of stations.

In 1847, Hon. Robert McClelland, of Michigan, chairman of the Committee of Commerce, House of Representatives, offered an amendment to the lighthouse bill, then under consideration, making an appropriation of $5,000 for furnishing lighthouses on the Atlantic coast with the means of rendering assistance to shipwrecked mariners. This bill became a law on the 3d of March, 1847, but after the money had lain in the treasury for something like two years, it was expended by due authority under the auspices of the Humane Society of Massachusetts. This was the first appropriation made by the United States for life-saving purposes, but Mr. McClelland was by no means the first to suggest such action, which was previously strongly advocated by the Messrs. Blunt, of New York city, and Lieutenants William D. Porter, Thornton D. Jenkins and Richard Bache, while connected with the lighthouse establishment.

On August 3, 1848, Representative in Congress William A. Newell, of New Jersey, made an argument in behalf of an amendment offered by him to the lighthouse bill, then pending, providing for an appropriation of $10,000 for life-saving purposes, to be expended on the coast lying between Sandy Hook and Little Egg Harbor. This bill became a law on August 14, and was the second appropriation for life-saving purposes made by the general government, and the first for the New Jersey coast. In pursuance of the act, eight boathouses were located and equipped between the points named, each building being 16 by 28 feet. The location, erection, and equipment were under the direction of Captain Douglass Ottinger, of the revenue marine (now the revenue cutter service), with whom a committee of the New York Board of Underwriters cordially co-operated. Among the various articles placed in the stations were one metallic surfboat with air chambers and necessary outfit, one metallic life car with its proper appurtenances, one iron eprouvette mortar, ten round shot with spiral wire attachment for the purpose of fastening to them the shot-line to be fired over the wreck, and such other subsidiary appliances as were necessary.

On March 3, 1849, another appropriation, this time of $20,000, which Mr. Newell was instrumental in obtaining, was made by Congress to be expended, as was the preceding, under the direction of an officer of the revenue marine. Lieut. John McGowan was detailed to superintend the expenditure of this sum, which was limited by law to that part of the coast lying between Little Egg Harbor and Cape May. He had the aid and co-operation of the Philadelphia Board of Underwriters.

A like sum was appropriated by the same act for placing surfboats, lifeboats, etc., on the coasts of the United States, generally. Under the latter provision eight boathouses were erected and equipped between Montauk Point and Coney Island on the outer shore of Long Island, one on Fisher's Island and one at Eaton's Neck on Long Island Sound. From the sum appropriated to the New Jersey coast, six were erected, and all were furnished with appliances as above stated. Thus it appears that the inception of the government life-saving establishment was nearly simultaneous

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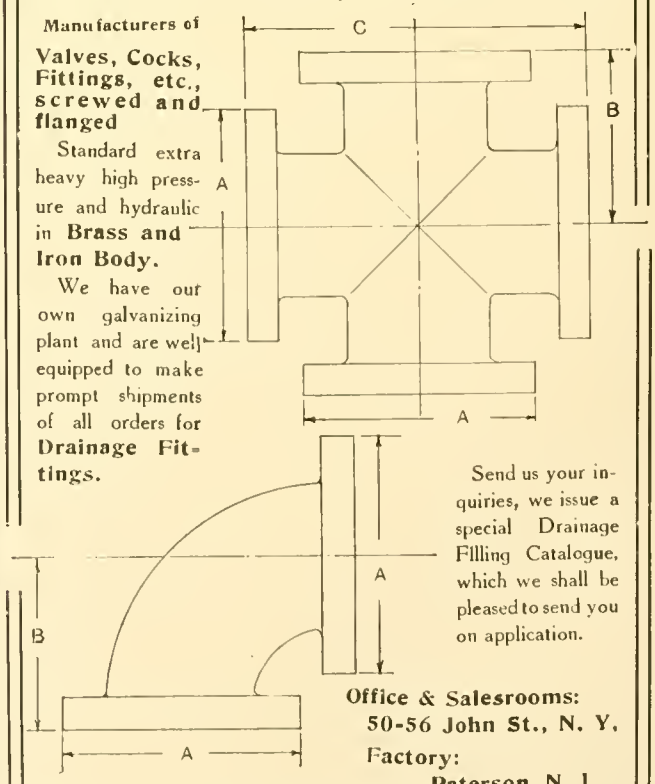

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on both the New Jersey and Long Island coasts, flanking the gateway to New York harbor and the metropolis of the western world.

The stations were manned only on occasions of disaster, and then by volunteers gathered from the surfshore people. These brave men saved many lives and much property during the season of 1849-50. On January 12, 1850, a furious storm swept the New Jersey coast, and about one o'clock in the morning cast on shore at Squan Beach the British ship "Ayrshire," which carried a large number of persons. During the previous twenty-four hours the wind blew with almost hurricane force, and amid a thick snowstorm the ship struck. Within an hour or two thereafter the mortar, shot, shotline and line car were taken to the beach, and as soon as possible a ball and line were fired over the wreck. The car was put in operation and made more than fifty trips, conveying 201 persons in entire safety to the land, through a surf which ran so high that no boat could have lived in it. This was the first occasion on which the life car was used, and its great value as a part of the life-saving equipment was clearly demonstrated.

Captain Ottinger (in charge of the boathouses), naturally enough, was very proud of the success of the car which he claimed as his invention. Mr. Joseph Francis, who manufactured the car, strenuously disputed the claim, and the car seems to have become generally known by the latter's name. Captain Ottinger's title, however, was recognized by the House of Representatives, which, through the Committee on Commerce, made an examination into the facts. This committee reported a bill in 1859 that passed both houses directing the payment to Captain Ottinger of $10,000 "in full compensation for the use of his invention of the life car or surf car by the United States, and also to enable him further to test the practicability of adapting such cars to the rescue of passengers and crews during violent gales at sea." By a subsequent act of Congress (1887), Mr. Francis was awarded a medal of honor for the same invention. To whom the credit is really due seems to be not certainly known, even at this day, and it is probably now too late to settle the matter.

During the two or three years which followed, some good work was performed by the volunteer crews along the New Jersey shore; but on May 15, 1854, a terrible wreck occurred when the ship "Powhatan" stranded in the vicinity of Long Beach, and some 300 persons lost their lives, not one having been saved. The vessel lay, it is said, within less than a hundred yards of the shore. She struck during the night, but it was not known in the vicinity of Long Beach station, whence aid might have been expected, until two o'clock the following afternoon; and it was five o'clock before a crew was ready to launch the boat. It was deemed too late then to undertake the journey, and further action was delayed until morning, thirty hours after the ship had stranded, so that, in fact, when the life-saving men arrived abreast of the wreck all was over. No one blamed any individual for the terrible result which was plainly due to lack of properly located stations sufficiently near together and of a thoroughly organized service. This most pitiful catastrophe at once aroused public interest to white heat.

About the same time a similar disaster, except that no loss of life occurred, served to emphasize the situation. This was the wreck on Long Beach of the "Underwriter," carrying 500 passengers, whose lives were saved only by the fact that she was a very substantial vessel and withstood the storm until a rescue was effected after the lapse of a long time. A large part of the day was spent in fruitless endeavors to throw a line on board by means of the mortar; the spiral wire and line broke several times and finally the mortar burst, making the use of the car impossible.

The subject of improved methods was now earnestly debated, and suggestions were made regarding the possibility of providing better apparatus, of taking proper care of that already in use, of the appointment of custodians for the property who should have charge of operations at wrecks, of an increase in the number of life-saving stations, etc. Prior to this a bill had been reported in the Senate providing for some reforms and was passed by that body, but failed of action in the House before adjournment. At the next session this bill, with the memory of recent disasters fresh in mind, was again introduced. It passed both houses and became a law on the 14th of December, 1854, but not without considerable opposition in the House, where there were 45 votes recorded in the negative against 126 in its favor. This act authorized the secretary of the treasury to establish additional stations on the coast of Long Island and New Jersey, to change the location of existing ones, to make such repairs and supply such apparatus, etc.,

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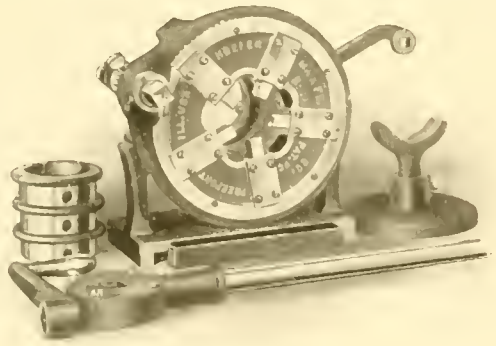

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as he might deem necessary, to appoint a superintendent for each of the two coasts with the powers and duties of inspectors of customs at a compensation of $1,500 each, per annum, and to appoint a keeper for each station with a salary of $200 per annum. No crews were authorized, and there was no provision for the payment of the volunteers who should man the boats.

The appointments having been made as required under the law, a degree of responsibility was established which resulted in decided improvement in the efficiency of the stations; but still the administration of the service did not nearly reach the standard due to the importance of the interests affected. No regulations were provided; the officers were not strictly held to accountability with regard to their duties or the care of the property intrusted to their keeping, and records of disasters were not required to be kept, or reports furnished to the department. So that as a matter of fact, the department had little knowledge of affairs at the stations and exercised scarcely any control over them.

The matter of the employment of permanent crews was a subject of occasional discussion, but none was provided until 1870, when they were authorized at alternate stations to the number of six men at $40 per month for three months—December 15 to March 15. It appears that in 1869 the Hon. Charles Haight, of New Jersey, moved an amendment to an appropriation bill providing for the employment of crews at all stations. It was urged with force, but defeated. The Hon. Samuel S. Cox, however, offered a substitute containing the provision above mentioned, and on the 15th of July, 1870, it became a law.

During the entire preceding period, from 1848 to the winter of 1870-71, dependence rested upon such volunteers as might be gathered from time to time on occasions of disaster, without previous opportunity of drilling together as crews, and with no recognized lawful superior officer to direct and command operations. However, they bravely accomplished all that could be expected under the adverse circumstances, with the inadequate means afforded. These were the conditions at the close of what may be termed the first period of life-saving affairs.

The second period begins with the present system, which was organized under act of Congress approved April 20, 1871. In February of that year the present general superintendent of the life-saving service took charge of the revenue marine division of the treasury department, under the supervision of which the life-saving boathouses were maintained. He soon discovered the unsatisfactory status of affairs, and upon his recommendation the secretary of the treasury requested of Congress an appropriation of $200,000, with authority to employ crews of experienced surfmen at such stations and for such periods as might be deemed necessary and proper. The act of April 20, which followed, contained these provisions, and Captain Faunce, of the revenue marine, was immediately dispatched to the coasts of Long Island and New Jersey to make a thorough examination of the service there. He reported that most of the stations were too remote from one another, that the buildings were dilapidated, many so far gone as to be worthless, and that all were in need of extensive repairs as well as enlargement. They also showed neglect and in some instances misuse. The life-saving apparatus was rusty and imperfect; some of it was ruined; the most necessary things were often wanting, such as powder, rockets, shot lines and shovels. There were stations at which no portable article was left. Some of the keepers were too old; others lived too far away; political influence rather than professional fitness had dictated appointments during the single year after crews were organized, and the employment of crews at alternate stations had in some cases resulted in having them where they were little needed, while it had left other stations, where regular crews were most necessary, dependent upon volunteers.

A thorough reorganization was, therefore, inaugurated in order that the practically new service might be fit and ready for the winter's work which was already near at hand. Twelve new houses were established on the Jersey coast, and the old ones were either rebuilt or enlarged so as to afford accommodations for the crews, apparatus and shipwrecked people. The new houses were 42 by 18 feet in dimensions, with a lower and an upper story, each divided into two rooms, one of the lower ones being adapted for the accommodation of the apparatus, and the other for a messroom. One of the upper rooms was set apart for the storage of various portions of the apparatus, while the other was furnished as a dormitory for the crew. All stations were supplied with

the most approved apparatus obtainable, and such changes of location were made as were found necessary.

Under the clause of the law authorizing the employment of surfmen at such stations as the secretary might deem necessary, they were employed at all stations, and were selected as far as possible from the best material at hand with regard to professional fitness only. That political and personal favors in some instances may have crept in without the knowledge of the general superintendent is probably true, but as far as possible such forbidden influences were excluded, and at the appointed time the crews went on duty. Regulations for the government of the crews were issued, requiring frequent drills with the apparatus and regular routine station duties.

Many of the fatal disasters of former years were primarily due to tardy discovery, and with a view to securing information of wrecks at the earliest possible moment, it was ordered that the beaches should be patrolled through the night, and during the day in thick weather. Subsequently each patrolman was required to carry a metallic check to be exchanged with the patrolman whom he would meet from the adjacent station, each taking back the one received in exchange as a voucher of his fidelity. Besides the check the patrolman also carried night signals with which to apprise shipwrecked crews of their discovery, and afford them assurance that relief would be undertaken. It was well understood at the outset that this duty would be difficult and dangerous in view of the various incidents of cold, darkness and tempestuous weather, and the project met with opposition; but it was believed to be absolutely essential to the success of the service and was resolutely enforced. The first season's experience, the winter of 1871-72, gave most gratifying results, the reports showing that not a single life was lost within the scope of lifesaving operations, including both the New Jersey and Long Island coasts. The next season showed like favorable reports, and the system has satisfactorily continued until the present day. The crews are divided into four watches extending from sunset to sunrise, each watch consisting of two men who proceed in opposite directions from their station to the places of meeting the adjacent patrols. Under this arrangement no surfman ever has a whole night in bed, and a considerable percentage incur disease or physical injury in making their lonely vigils, while several have perished on the stormy pathway. One of these was John Parker, of the Forked River station, New Jersey, who was found by a search party frozen to death in the snow. A considerable number belonging to various stations have also perished from exposure and accident on the patrol, but the utility of the system is so plain that no thought of suspending or abolishing it has ever occurred.

The selection of surfmen was made at first upon nominations by the keepers, but, notwithstanding the utmost vigilance, as time went on no great period elapsed before the discovery was a subtle poison hard to detect and harder itism and the forbidden influence of political favor actuated the keepers in many cases. The evils of kinship and personal favoritism were not difficult to suppress, but the political bane was a subtle poison hard to detect and harder to drive out.

It must not be understood that as a rule representative men in state or national politics were engaged in the petty political chicaneries. Those methods were generally resorted to by the small politicians for no other purpose than to further the election of some local nobody to a dignity no higher, perhaps, than that of town constable or pound keeper, and it was remarked in one of the annual reports that even "they would probably consider it very hard fortune to find themselves in imminent peril upon a wreck, swept fore and aft by the winter sea and condemned to look for deliverance by lifesaving crews of their own choosing."

Upon the first authentic rumors of political interference, the chief of the service at once began a searching investigation. In one of the districts where political manipulation had gained considerable headway, it was found that two of the ten keepers had no knowledge whatever of surfmanship and nautical matters, one being a blacksmith, another a school teacher, while a third knew scarcely anything about the business, and a fourth was totally disqualified physically. At one station there were but two competent persons in the entire crew. In the fourth district (the coast of New Jersey) the conditions were found to be tolerably good. Out of 259 keepers and surfman, 7 keepers were recommended for removal for various causes, 3 of them for incompetency. Of the 222 surfmen only two were found incompetent. At that time the New Jersey district was considered the most important in the service, having had

forty wrecks within its limits during the preceding season. The report of the general superintendent for that year says: "The creditable conduct of the crews on all occasions of disaster and their success in saving life and property attest the general efficiency of the district." A thorough sifting of all the districts where there was any necessity for this resulted in marked improvement.

From this time the service grew rapidly in importance until 1878, when Congress removed it from the supervision of the revenue cutter service, and by the act of June 18, organized it into a bureau. The chief of the revenue cutter service, Mr. Kimball, was promoted by the president, and unanimously confirmed by the Senate, to be the general superintendent. On May 4, 1882, in response to urgent appeals of the general superintendent throughout the preceding ten years, Congress enacted the following provision of law, at last placing the service on the bedrock of non-partisanship:

"The appointment of district superintendents, inspectors and keepers and crews of life-saving stations shall be made solely with reference to their fitness, and without reference to their political or party affiliations."

As organized under the act of June 18, 1878, the coasts of the United States—upwards of 10,000 miles in extent, exclusive of Alaska and our insular possessions—are divided into thirteen life-saving districts, of which the coast of New Jersey is the fifth. Here are 41 stations, beginning at Sandy Hook and ending at Cape May. They are connected with one another by a telephone line belonging to the service, which covers the entire distance except five or six miles between Cold Spring and Cape May, where a private wire is used; at various points the system is connected with important commercial centers, so that early information to vessel owners, underwriters, maritime exchanges, etc., may be turned over to the general telegraph lines. Most of the stations are of modern design, having ample accommodations for the crews and apparatus. The living portions of the houses, which are of two stories, contain a kitchen, general messroom or sitting-room, keeper's office and a large and airy dormitory, while the apparatus-room is ample for the accommodation of the several boats, the life car, duplicate sets of the breeches buoy apparatus, and all the various paraphernalia pertaining to life-saving operations. The Lyle gun, which long since superseded the mortar as a means of throwing lines to wrecks, is in every station. It is a light bronze cannon, weighing with its whole equipment only about 200 pounds, and is capable of throwing a line more than twice as far as was the mortar—very nearly 700 yards under the most favorable circumstances.

A regular routine of duties is appointed for every day. Monday it is practice with the beach apparatus, overhauling the boats and all apparatus and gear; Tuesday, practice with the boats; Wednesday, practice with the international code of signals; Thursday, practice with the breeches buoy apparatus; Friday, practice with the method for restoring the apparently drowned; and Saturday, "Cleaning house." The drill with the breeches buoy is performed with the aid of a spar erected near the station to represent the mast of a vessel. A surfman, representing a shipwrecked sailor, is mounted on the spar, which has a cross arm, and the shot line is thrown with the Lyle gun; the rest of the apparatus is then set up, and the surfman is taken off in the breeches buoy. While there is always more or less difficulty in these operations at actual wrecks, they are generally performed in drill with astonishing celerity, and in drill if a crew cannot accomplish the rescue of a supposed shipwrecked man within five minutes, it is supposed to have been remiss in attention to duty.

The crews, including the keepers, generally consist of from seven to eight men, and, as required by law, are selected wholly with regard to professional fitness, and without regard to any other consideration whatever. The stations on the New Jersey coast, as well as on the entire Atlantic, are open and manned for duty from August of each year to May 31 of the following. During June and July, when the weather is generally very mild, only the keeper is in charge at the station; but the crews are bound to service during these months in case of disaster should they be in the vicinity where they generally reside, and in the absence of any members of the crew the keeper is authorized to procure the services of volunteers. The pay of keepers is $900 per annum, and of the surfmen $65 per month when employed at the stations.

No better keepers or surfmen can be found anywhere in the world. Their achievements, often under the most distressing conditions, have on numerous occasions shown a degree of skill, endurance and courage little less than marvelous. Perhaps no better examples could be found than several rescues effected in the

PENNSYLVANIA FERRIES, JERSEY CITY, N.J.

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height of a terrible tempest which swept the coast February 3, 1880, when the crews of three separate stations rescued without the slightest mishap all the persons on four different vessels by means of the breeches buoy apparatus, which was set up and operated in utter darkness while the lanterns of the surfmen as well as their clothing and the entire apparatus were thickly covered with sleet, and the light of the lanterns was thereby rendered so feeble as to be almost useless. The storm was practically a hurricane, reaching the velocity of 84 miles an hour. All the hotels at Long Branch were more or less injured, while the roofs of two were completely carried away. The roof was also wrenched from the pavilion on the pier—a building 350 feet long. Like damage occurred all along the shore. The surf was the highest known for many years, and the tempest raged for twelve hours.

The first of the four wrecks mentioned was that of the "Stephen Harding," a three-masted schooner, carrying eight persons. After the beach apparatus was set up, for some reason unknown to the life-saving crew, the shipwrecked people did not come ashore and it became necessary to send out to the wreck a surfman in the breeches buoy to superintend the movements on board. Surfman Wilson undertook this perilous duty, and through his brave assistance at the risk of his life all were safely taken to the beach.

The next case was that of the brig "Castalia." Notwithstanding the intense darkness, the shotline was speedily fired on board and the eleven persons, including one woman, were soon safe on the beach.

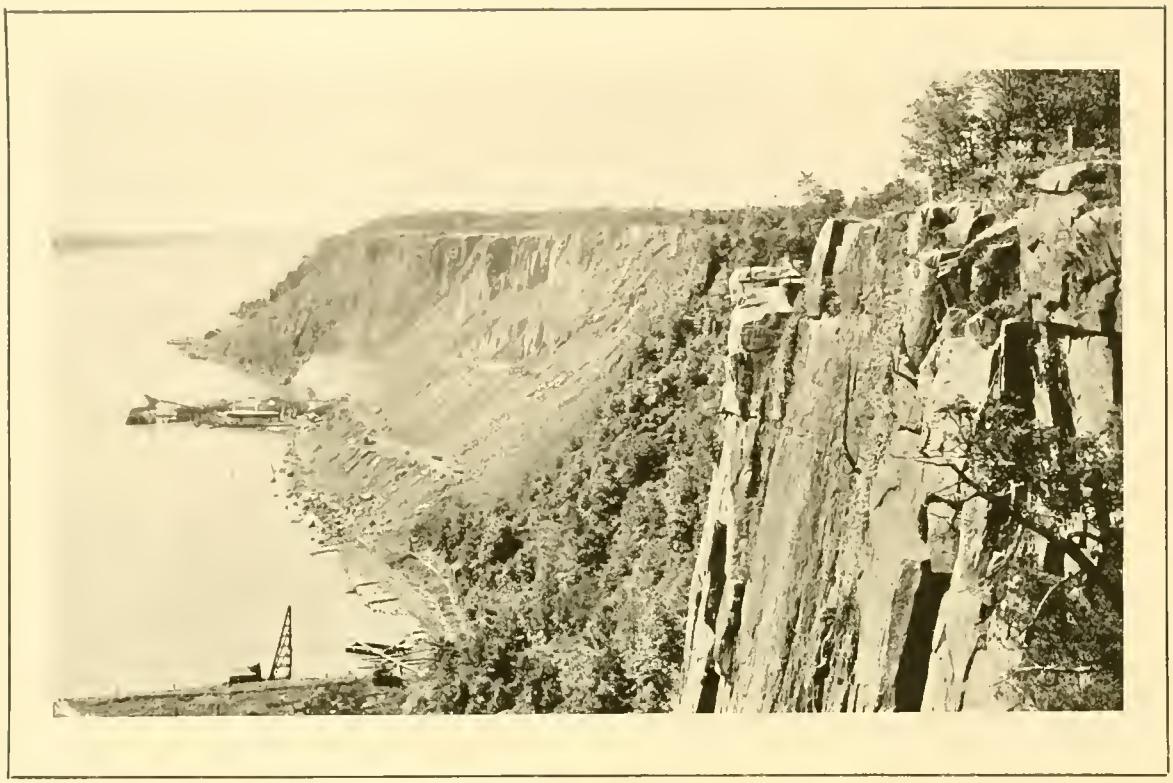
Then came the "E. C. Babcock," which, laden with cord wood, carried besides her crew the captain's wife and two children. With almost incredible swiftness all were landed one by one, except that a little child came in the arms of the captain and one with the mate. This vessel struck a mile and a quarter distant from the station, and despite all the formidable obstacles encountered in reaching the place and setting up the gear, the eight people on board were rescued within one hour and fifty minutes after she had struck.

The next instance was very similar, only that the life-saving men, at extreme danger to their own lives from the deadly undertow and the floating débris and cord wood from the "Babcock," which was breaking up, were obliged to rush into the breakers to save some of the people.

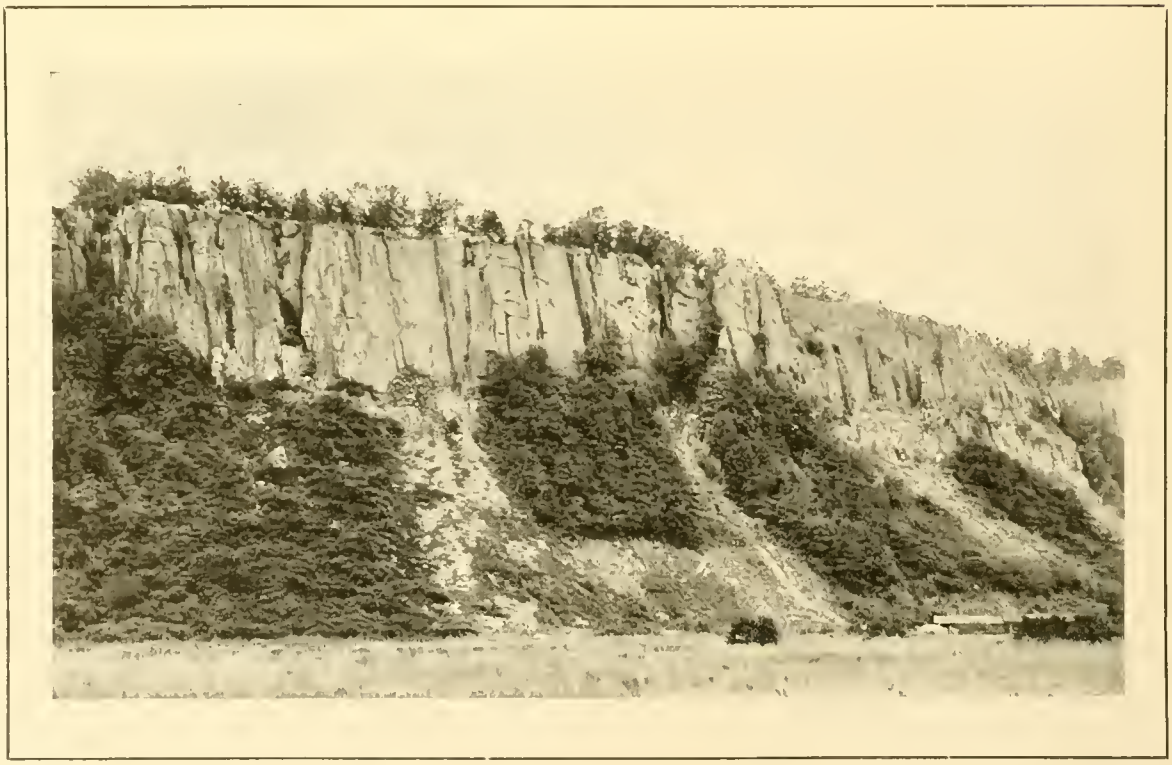
The "George Taulane," another of this day's disasters, was followed for over three miles as she drifted along the shore, the life-savers, on account of the terrific sea, which covered the entire beach, being obliged to stumble along the sand hills painfully dragging their apparatus and occasionally firing a life-line toward the vessel as she paused for a few moments on her terrible course. As soon as she finally held up, all on board were saved; one had fallen from the rigging while the vessel was drifting before the gale. These and other rescues accomplished during that memorable storm excited such public admiration that the state legislature unanimously adopted resolutions commending the skill and bravery of the station crews.

When the act of Congress of December 14, 1854, was under discussion, Mr. Skelton, of New Jersey, and Mr. Chandler, of Pennsylvania, both stated repeatedly in the House of Representatives that the loss of life from shipwreck on the New Jersey and Long Island coasts was more than a thousand every year. There are no statistics by which this statement may be tested, but unquestionably the loss was very heavy. Under the present system it has been reduced to small proportions. From Sandy Hook to Cape May the entire coast line of the state is patrolled every night during ten months of the year by 250 sharp-eyed watchmen, from whose vision it is hardly possible for a wreck to be concealed by fog or darkness, nor is there any danger that assistance may be either delayed or inefficient. By means of the telephone lines, three or four crews can easily be assembled in case of extraordinary disasters within not much more than an hour, two of them ordinarily within less time.

Only 109 lives have been lost on the Jersey coast in almost 32 years under the present system (November 1, 1871, to June 30, 1903), as against sometimes many more than twice this number in a single year under the old régime; and this total of lost is from 14,527 lives imperiled. Therefore, only 1 out of every 133 has perished. The number of vessels involved in these disasters was 1,544; the estimated value of cargoes, $36,370,106, of which amount only $7,335,172 has been lost. During the same period 2,496 persons have been given succor for 6,386 days at the stations on the coast. This succor has not only included shelter and food, but in almost all instances clothing.



SCENES ALONG THE PALISADES NEW JERSEY



Stevens Institute of Technology

By Prof. A. C. Humphreys, President

Stevens Institute of Technology was founded by Mr. Edwin A. Stevens, the surviving member of a family trio of pioneer American engineers, the first being Col. John Stevens, his father; and the second, Robert L. Stevens, his brother. Mr. Edwin A. Stevens died in 1868, leaving a plot of ground, a building fund of $150,000 and an endowment fund of $500,000 for an "Institution of learning."

The executors of Mr. Stevens' will, who were also the appointed trustees of the proposed institution, selected Henry Morton, then professor of chemistry in the University of Pennsylvania, and secretary, and editor of the "Journal," of the Franklin Institute, as president of the new institution, the nature of which Mr. Stevens had left open, but which his executors decided, after studying technical institutions in this country and in Europe, should be a school of mechanical engineering. Accordingly a building was erected and in September, 1871, its doors were thrown open to the public.

There was not at that time an institution anywhere devoted to the study of mechanical engineering, and it was no small task that the trustees and President Morton undertook in laying out a suitable curriculum for a training in that particular branch of the engineering profession. That they succeeded in their plans all the world now knows; and in this success a large measure of credit is due the men who composed the original faculty, all but three of whom have passed away. These men were Henry Morton, Ph.D., president; Alfred M. Mayer, Ph.D., professor of physics; De Volson Wood, C. E., professor of mathematics; Robert H. Thurston, C. E., professor of mechanical engineering; Charles W. MacCord, Sc.D., professor of mechanical drawing; Albert R. Leeds, professor of chemistry; Charles F. Kroch, A. M., professor of languages, and Edward Wall, A. M., professor of Belles-Lettres. Professors Wall, MacCord and Kroch are still members of the faculty.

The work accomplished by the men of the original faculty in their respective departments has been thorough and complete, as the many Stevens men now holding high rank in the engineering world will testify. In this connection President Alexander C. Humphreys recently tabulated a general though brief statement of the prominent positions held by Stevens' Alumni, not only to show their officers, but also the breadth of the Stevens' curriculum, which has always aimed to give a thorough grounding in the underlying principles of engineering, thus fitting the graduate with a substantial training for any branch of the work he may choose to take up. The list of responsible positions held by Stevens' graduates includes: Officers of railroads, superintendents of iron and steel mills, electric light engineers, electric railway engineers, manufacturers of electrical apparatus, gas engineers, specialists in steam, marine engineers, designers and builders of various kinds of engines, hydraulic engineers, bridge builders, sugar manufacturers, flour manufacturers, refrigerating engineers, oil refiners, locomotive builders, copper refiners, manufacturers of instruments, superintendents of paper mills, manufacturers of textile machinery, mining engineers, etc., etc.

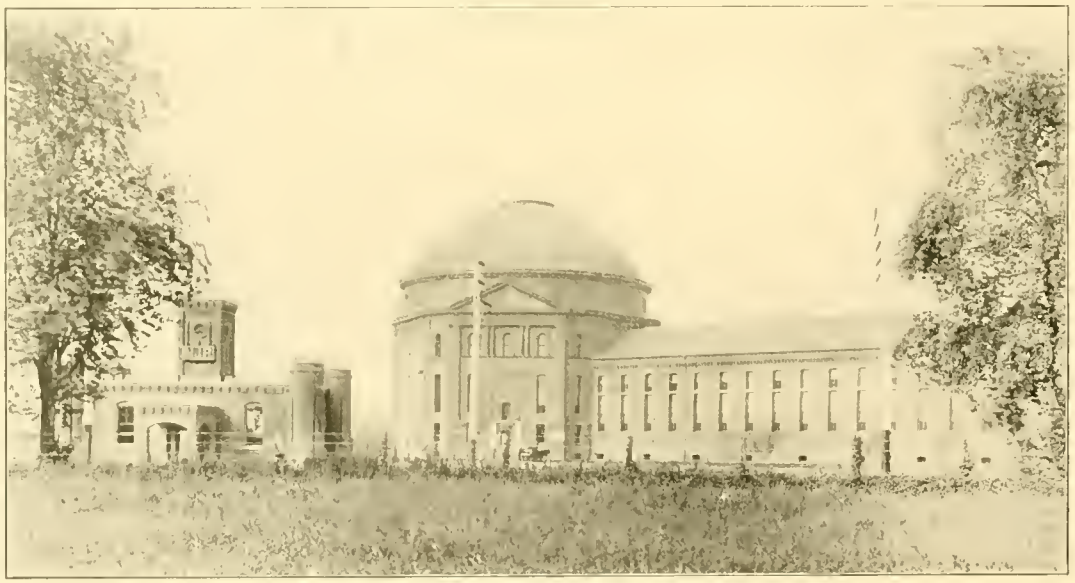
The Stevens Institute is governed by a board of trustees as follows: Mr. Andrew Carnegie, Mr. S. Bayard Dod, Col. G. B. M. Harvey, President Alexander C. Humphreys, Mr. Edwin A. Stevens, Mr. Richard Stevens, Mr. Henry R. Towne, Mr. Alfred R. Wolff, and three Alumni Trustees, each serving for a period of three years. At the present time the Alumni trustees are: Mr. Carter H. Page, Jr., '87; Mr. Edward A. Uehling, '77, and Mr. M. C. Post, '86.

President Morton who has directed the affairs of the Institute since its beginning, passed away May 9, 1902, and in the following June Mr. Alexander C. Humphreys, a graduate of the Institute (class of '81), and a member of the board of trustees since 1891, was unanimously elected as Dr. Morton's successor.

The original endowment of Stevens Institute, as already mentioned, was $500,000. The principal sources of revenue received since its establishment have been from the late President Morton, who at various critical times gave sums ranging from $2,500 to $50,000, and aggregating $145,000. Not all of this remains as an endowment fund, for much that President Morton gave was applied to meeting the growing demands for accommodation. For example, he gave $10,500 for fitting up a workshop in 1881, and $15,000 for the building of a new boiler-house in 1901. In 1899 Mr. Andrew Carnegiedonated $65,000 for a new laboratory of Engineering, and upon its completion in 1902, gave $100,000, and a year later $125,000 and 1905 $50,000, making a total of $275,000 as an endowment fund for the building. In 1897, Mrs. Martha B. Stevens, widow of the founder, gave a plot of ground with house, valued at $30,000; and in 1903, Colonel E. A. Stevens and Robert L. Stevens, both sons of the founder, gave a valuable tract of land close to the Institute grounds for a dormitory.

The course of study at the Institute, as suggested by the list of the departments previously given in connection with the original faculty, has grown with the times, until now, in this year of 1906, it includes thorough and complete studies in theoretical, practical and experimental mechanical and electrical engineering, mechanical drawing and designing, business engineering, engineering chemistry, mathematics, physics, English and logic, and modern languages.

Large and well-regulated laboratories are provided for manual work in the Department of Experimental Mechanics, Electrical Engineering, Physics and Chemistry, also shops for instruction in machine work, carpentry, pattern and core-making, moulding and foundry work; and large and well-lighted draughting rooms in the Department of Drawing and Designing. These latter have recently been equipped with individual adjustable electric lamps for each student. Two years ago



NEW JERSEY REFORMATORY, RAHWAY

the shops were transferred to entirely new quarters and equipped with much modern machinery. The Carnegie Laboratory of Engineering, provided by Mr. Andrew Carnegie in 1902, furnishes perhaps the best arranged student laboratory for experimental engineering in the country. The electrical laboratory has been almost entirely re-equipped within the past few years. A large auditorium seating 700 people was added in 1903, thus providing a suitable meeting place for scientific lectures, alumni and student meetings, etc.

In May, 1904 the Institute purchased five acres of ground from the Stevens Estate, on Castle Point, immediately adjoining the present Institute campus. This newly equiped property, which is now being laid out as an athletic field, is directly in front of the plot of ground given by Col. E. A. Stevens and Robert L. Stevens, in 1903, for dormitory purposes. When these plans are completed the students of the Institute, though located practically in the heart of the metropolis, will have the advantages of country as well as city college life, with the dormitories and athletic field situated on high ground on the river's edge and overlooking the city and harbor of New York.

There is now a new laboratory of chemistry being built from a fund subscribed by the late President Henry Morton and by the alumni. This building and its equipment will cost about $125,000.

The enrollment of students at the Institute during the college year 1904-1905, was 384. Since 1873 the Institute has graduated 1,139 men, of whom about five per cent are now deceased, and ninety per cent. are engaged in professional lines of work.

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Manufacturing Industries

The census enumeration for 1850 includes 1,207 New Jersey manufacturing plants with a capital of $22,293,258, employing an average of 37,830 workmen who received $9,364,740 in wages, with an aggregate product valued at $39,851,256. The proportion of population (189,555) employed in the manufacturing plants of the state during the census year ending 1850 was (7.7) seven and seven-tenths per cent. of the whole.

In 1860 there were 1,173 manufacturing establishments, employing $40,521, 048, and an average of 56,027 workmen, who were paid $16,277,337 in wages. The value of the aggregate product was $76,306,104; and the proportion of the population (672,035) employed in these plants was (8.3) eight and three-tenths per cent. of the whole.

In 1870 there were 6,636 manufacturing establishments capitalized at $79,606,749, employing an average of 57,552 workmen, who were paid $32,648,409 in wages, with an aggregate product valued at $169,237,732, while the proportion of factory workmen remained the same as in 1860 or 8.3 per cent. of the whole population.

In 1880 the New Jersey manufacturing establishments had increased to 7,128, having a capital of $106,226,593 employing an average of 126,038 workmen who were paid $46,083,045 in wages. The value of total product was $254, 380,236, and the number of workmen had increased to (11.1) eleven and one-tenth of the entire population (1,131,116).

In 1890 there were 9,225 establishments capitalized at $250,805,745, employing an average of 173,778 workmen who were paid $82,944,118 in wages. The value of the aggregate product was $354,573,571, and the proportion of population employed in factories had increased to (12.0) twelve per cent. of the whole (1,444,933).

Our 1900 census includes for New Jersey 15,481 manufacturing plants capitalized at $502,824,082, employing an average of 241,582 wage-earners, who were paid a total of $110,088,605. The value of products had increased to $611,748,933. The percentage of the entire population (1,883,669) employed in factories was 12.8.

From the above extracts from census reports it will be seen that there has been an unusual growth in the manufacturing and mechanical industries of New Jersey during the half century. During this period there was an increase of from 489,555 to 1,883,669 in population. Manufacturing plants increased from 1,207 to 15,481; the capital employed from $22,203,258 to $502,824,082; the value of products increased from $39,851,256 to $611,748,933; the average number of wage-earners increased from 37,830 to 241,582; factory employees in proportion to the entire population has increased from (7.7 to 12.8) seven and seven-tenths to twelve and eight-tenths per cent. This conclusively proves that the adoption of automatic machinery and other labor-saving inventions do not decrease the number of workmen employed in manufacturing industries. In the value of manufactured products New Jersey ranks sixth in the United States. Of the 17,680 establishments included in the above report for 1900 9,372, or 53 per cent., were small shops included in the groups of "hand trades" and establishments with an annual product of less than $500. The value of the products of these establishments, consisting principally of the sums received for custom work and repairing, amounted to $46,444,121, or only 7.6 per cent. of the total value of the manufactured products of the state.

Among the numerous causes of New Jersey's phenomenal growth on industrial lines perhaps the more important are her exceptionally favorable geographical position and the unequaled transportation facilities furnished by the railroads which connect the manufacturing centers with the New York bay, Staten Island sound and Raritan bay. There are seven trunk line systems of railroad in the state, all having terminals close to New York bay, having a total mileage within the state of 2,242 in 1899. It is necesary to transport the coal needed for manufacturing over comparatively short distances, the center of the anthracite district in Pennsylvania being but about fifty miles from the western border of the state, and about 125 miles from the eastern border. Much of the pig-iron used by manufacturers comes from Morris and Warren counties in the northern part of the state. Four railroad lines connect this region with the chief manufacturing centers. The industrial growth of the state has been stimulated also by the proximity to the markets of New York on the east and Philadelphia on the west.

The census report for 1900 enumerates fifteen so-called leading industries, including petroleum refining, pottery, rubber and elastic goods, sewing machines and attachments, textiles, including carpets and rugs, cotton goods, dyeing and finishing, hosiery and knit goods, shoddy, silk and silk goods, woolen goods and worsteds; also tobacco, including chewing, smoking and snuff; cigars and cigarettes.

The petroleum industry included four establishments having an aggregate capital of $23,332,426, employing an average of 2,951 workmen, paying $1,768,768 in wages, with an aggregate product valued at $29,649,460.

The pottery, terra-cotta and fire clay industry included eighty-one establishments employing a capital of $15,324,966, employing an average of 8,117 persons, who were paid $3,841,404 in wages, with products aggregating $8,940,723.

The rubber and elastic goods industry included thirty-seven establishments, employing an aggregate capital of $6,078,155, employing 2,609 workmen, who were paid $1,150,503 in wages with an annual product valued at $8,458,274.

The sewing machine and attachments industry included four establishments capitalized at $4,317,666, employing 4,701 workmen, who were paid $2,809,523, with an annual product valued at $6,643,348.

The carpet and rug industries included thirteen establishments employing an aggregate capital of $1,487,031, employing 1,171 workmen, who were paid $379,423 in wages, with an annual product valued at $1,522,827.

The cotton goods industry included twenty-five establishments, employing a capital of $14,399,291, employing 5,681 workmen, who were paid $1,930,940, with an

RUTGERS COLLEGE AND RUTGERS SCIENTIFIC SCHOOL, NEW BRUNSWICK, N. J.

annual product valued at $6,930,766.

The dyeing and finishing industries included fifty-nine establishments capitalized at $11,600,695, employing 7,074 workmen, who were paid $3,003,491 in wages, with an annual product valued at $10,488,963.

The hosiery and knit goods industry included sixteen establishments, capitalized at $1,973,482, employing 1,841 workmen, who were paid $446,608 in wages, with a total product valued at $1,748,148.

The shoddy industry included four establishments capitalized at $538,936, employing 156 workmen, who were paid $56,027 in wages. The total product was valued at $685,048.

The silk and silk goods industries included one hundred and eighty establishments, capitalized at $29,285,792, employing 25,157 persons, who were paid $9,232,532 in wages, having an aggregate product valued at $39,966,662.

The woolen goods industry included thirteen establishments capitalized at $4,549,798, employing 2,942 workmen, who were paid $1,013,232 in wages, with a total product valued at $4,755,393.

The worsted goods industry included eleven establishment capitalized at $12,080, 721 and employing 3910 workmen, who were paid $1,097,197 in wages with the total annual product valued at $6,823,721.

The chewing, smoking and snuff branch of the tobacco industry included twelve establishments, capitalized at $6,692,041, employing 1,955 workmen, who were paid $527,195, with an aggregate product valued at $7,788,379.

The cigar and cigarette industry included four hundred and eighty-six establishments, employing a capital of $1,311,122 and having 1,640 workmen, who were paid $705,158, with a total product valued at $2,647,595.

These 15 industries embraced 1,780 establishments, 11.5 of all manufacturing plants in the state on the various lines. Their total capital was $260,301,957, or 51.8 per cent. of the total capital employed on manufacturing lines. These fifteen establishments employed an average of 117,008 wage-earners, or 48.4 per cent. of the total number employed on manufacturing lines in the state. The total wages amounted to $52,825,741, or 58 per cent. of this amount. The value of their products was $258,421,105, or 42 per cent. of the total.

The textiles industry is the most important industry in the state, with 321 establishments reported in 1900 giving employment to 46,932 wage-earners, or 19.4 per cent. of the entire number of workmen employed in the manufacturing industries. Their products were valued at $72,921,528, or 11.9 per cent. of the total value of the manufactured products of the state.

The silk industry was begun in Paterson about 1840, but it had attained comparatively little success previous to the decade ending 1870, when large amounts of capital were invested and extensive mills were erected. During the decade the number of establishments increased from 8 to 29 and the value of products from $960,900 to $4,495,564. Paterson has now become the great center of the silk industry in the United States and its products in Paterson are probably exceeded only by that of Lyons, in France.

In 1900 there was 25 establishments in the state engaged in the manufacture of iron and steel, with 8,288 wage-earners and products valued at $24,381,699. The increase of such products during the decade from 1890 to 1900 was $13,363,124, or 121.3 per cent. The beginning of this industry dates back to a very early period in the history of the state.

One of the largest as well as the oldest manufactories of pig-iron is located at Oxford, in Warren county. Furnaces were established there and also at Phillipsburg, Hackettsown, Port Oram and Stanhope because of the local supplies of iron ore. Rolling mills and steel works are distributed over that part of the state which lies between Dover and Trenton.

In 1900 there were 77 establishments engaged in the tanning, currying and finishing of leather, with 4,178 wage-earners; their products were valued at $13,747,155. In 1890 there was but 31 establishments and but 706 wage-earners, and the products were valued at only $2,780,016. The increase of this industry during the decade was therefore 394.5 per cent. And yet the city of Newark had held a leading place in this industry from a very early period.

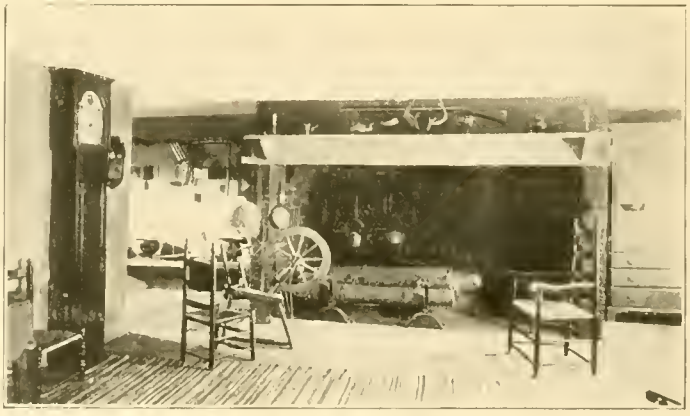
In 1900 there were 61 establishments in the manufacture of chemicals with 3,048 wage-earners and products valued at $12,207,289.

In 1900 there were 81 establishments engaged in the manufacture of pottery, terra-cotta and fire clay with 8,117 wage-earners and products valued at $8,940,723. With the exception of some porcelain clays fround elsewhere in the state, substantially all the valuable clays and sands which form the basis of the pottery industry are mined in Middlesex county in the neighborhood of Woodbridge and Perth Amboy. The hundreds of clay and sand pits are fortunately so situated that none of them are more than three miles from the navigable waters of State Island sound, Raritan river, or the South river. Stimulated by these advantages immense works have been constructed in this section of the state, of which architectural terra-cotta, fire brick and front building brick, gas retorts, stove lining, sewer pipe and roofing tile are made and distributed to all part of the United States. The city of Trenton, however, is the most famous pottery center of New Jersey and of the United States as well, its name being as naturally associated with the industry in the United States as are the names of Staffordshire, Dresden and Sevres, with the industry in Europe.

The finest quality of porcelain, granite and white ware are produced in Trenton. In the production of sanitary ware Trenton leads all others centers. The first pottery establishment for the production of white granite and cream-colored wares was established in 1859. In 1876 the ivory porcelain and Parian vases exhibited at the Centennial Exhibition in Philadelphia by Trenton manufacturers attracted much attention and greatly lessened the popular prejudice in favor of foreign-made pottery. The stimulus given by such publicity called into existence many new establishments, some of which have since become famous in the industry. Hitherto there had been little disposition on the part of practical master potters to go beyond the making of such ware as was put to the most ordinary uses. But higher grades of ware, more artistic shapes and better glazes begun about this time have since taken the place of the less perfect products of the kilns. Employers and workmen grew in experience and skill, the old conservatism was abandoned and the reputation of potteries have been been established on a high plane of workmanship.

In 1900 there were 37 establishments engaged in the manufacture of rubber and elastic goods, with an average of 2,609 wage-earners and products valued at $8,158,271.

WASHINGTON'S HEADQUARTERS, MORRISTOWN, N. J.



WASHINGTON'S HEADQUARTERS, MORRISTOWN, N. J.—KITCHEN

In 1890 there were but 12 establishments, 926 wage-earners and products valued at but $2,135,705 in this industry. The increase, therefore, during the decade was 296 per cent.

In 1900 there were 100 establishments engaged in the manufacture of jewelry, with 2,779 wage-earners and products valued at $7,379,777. Only three states, Rhode Island, Massachusetts and New York rank higher than New Jersey in this industry. This manufacture was established in Newark about the year 1830. Solid gold jewelry was made and the city acquired a reputation for fine work which it still maintains. All kinds and classes of solid and filled jewelry are now made in the state. The machinery employed is of the latest type and the workmen engaged in this industry are among the most skilled to be found anywhere.

New Jersey is rapidly becoming a great center for the manufacture of electrical apparatus and supplies. In 1900 there were 35 establishments, with 2,793 wage-earners and products valued at $6,447,154. In 1890 there were but 3 establishments, 425 wage-earners and products valued at $744,274. The increase of this industry in the state during the decade was therefore 766.2 per cent.

HIGH SCHOOL, JERSEY CITY

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Atlantic City

Atlantic City is the premier pleasure and health resort on the American continent, and, in fact, taken all the year round, it has no equal in the world. Some European resorts rival it at times for a limited summer or winter season, but no others compare with it in popularity, comfort, pleasure and health-giving qualities during all of the year. Occupying, as it does, a small island some ten miles in length and less than a mile in width, extending nearly due east and west, and distant about seven miles from the main land, from which it is separated by large salt water bays and salt meadows, it faces to the south so that the prevailing southwest breeze of summer comes to it from the ocean, and in the winter its southern exposure and its proximity to the Gulf Stream insure it an equable climate, balmy and mild, and several degrees warmer than the nearby cities of New York and Philadelphia. From a barren waste of sand dunes interspersed with a half dozen gunning and fishing boxes in 1854, when the first railroad was built, the island has grown into a modern pleasure and health resort city accommodating 250,000 people at a time and with a real estate value of about $92,000,000.

It is essentially a city of hotels, cottages and boarding houses. Its sole business is to entertain the public and to cater to the luxurious comforts, health, pleasure and happiness of the people who come to it from all over the country. On any day of the year guests may be and are accommodated in the hotels with all the comforts and luxuries which can be obtained in the best metropolitan hotels. In no other resort in the country are their accomodations for those seeking recreation, diversion and health that are to be found in Atlantic City.

Atlantic City is one of the most interesting places in America, not only because as an all-the-year-round resort it enjoys a practically never-ending season, but also because it is a city of importance among the municipalities of the New World. Its public buildings are many and handsome. Its commercial interests are numerous. Its schools and other institutions are large, modern and well equipped and well managed. Its business enterprises are varied, its paid fire department is well equipped, and it is withal one of the most desirable places in the world — a city of homes. Cottage life at Atlantic City is highly enjoyable. Many of the prominent business men from Philadelphia and other large commercial centers come to reside a whole or portion of the year and, on account of the superior train service, are enabled to attend to their business daily. There is a great deal of entertaining going on both among permanent residents and those of the summer and winter colony.

There are no fresh water rivers or other large bodies of fresh water near Atlantic City nor on the main land in proximity to it and, as a consequence, its climate is dry, and there is almost an entire absence of the fogs so prevalent where large bodies of fresh water empty into or are near salt water. Even in the midst of summer there is an absence of that sticky, damp clothing, mildewed shoe feeling so common to seashore resorts near large fresh water rivers or lakes. The dry climate and consequent pure air furnishes the real secret of Atlantic City's wonderful progress in popularity as a pleasure and health resort. The practical absence of ice and snow is another feature which contributes to Atlantic City's popularity during the winter months.

One and probably the most distinctive feature of Atlantic City is its magnificent ocean front esplanade or boardwalk, which is forty feet in width and extends a distance of four and one-half miles along the ocean's brink with an unobstructed view. This walk, constructed by the municipality at an expense of some $250,000 upon steel piling elevated from ten to fifteen feet above the strand, is said to be the most popular recreation resort in the world. Not only during the months of July, August and September, during which the season is at its height, is, this promenade well patronized but during the spring months of February, March, April and May, particularly during the Easter season, it is crowded with bright, well-dressed people enjoying the invigorating ozone from the ocean and the sunny southern exposure and balmy climatic conditions.

Rolling chairs are an institution of Atlantic City of equal popularity with the old and young, the sick and the strong. The hotels are nearly all constructed so that the invalid

YOUNG'S PIER, ATLANTIC CITY, N J

guest may leave his room in a rolling chair, being taken down the elevator and pushed right out on the boardwalk where nothing is more invigorating than a ride along the ocean one the level, wide walk, alive with bright faces and smart costumes. These chairs are also enclosed in glass for inclement weather, so that at no time during a guest's visit is he obliged to forego a trip along the boardwalk.

Atlantic City possesses one of the most perfect bathing beaches on the Atlantic coast. It shelves off very gradually, so that no life lines are necessary. It is not an uncommon sight during the summer month to see as high as 40,000 people at one time bathing in the surf.

The Casino of the boardwalk, in the center of the city and nearly opposite the City Park, is one of the recognized centers of social life. Here is maintained both winter and spring a high grade musical organization which gives concerts during the day and evening. From its broad verandas the vista of the beach, sea and sky stretches out in varied indescribable beauty, while all about one the gay, busy life of the boardwalk goes on affording endless diversion.

The Atlantic City horse show, which is held annually about the middle of July has come to be one of the recognized shows of the country on account of many of the finest horses in the Eastern and Southern states being entered in competition. The grounds are located at Inlet Park, which are continually swept by ocean breezes and are ideal for an open-air horse show.

Fishing, much of which is quite sporty, is very popular with visitors and residents of the City-by-the-Sea, and the angler will find plenty of exercise for both brain and muscle in his fight for mastery of the finny tribe.

The island being entirely surrounded by water, the region is ideal for yachting either in the smoother bays and thoroughfares lying between the beach and the main land or upon the ocean, which can be reached in a few minutes from the inside harbor. Many handsome private yachts are here the year round, while a fleet of public yachts are at inlet wharf at all seasons, which may be engaged for a short or long period.

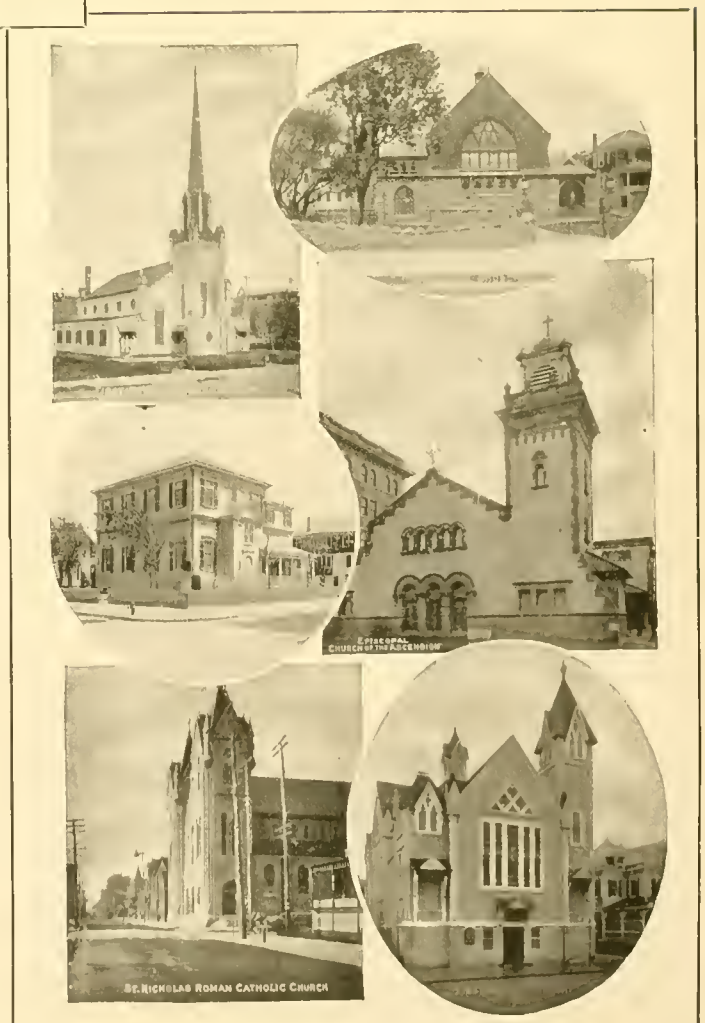
Atlantic City's water supply comes from a large lake several miles inland and in the midst of a forest far away from civilization. There has also recently been constructed near the pumping station on the main land, a number of artesian wells extending to a depth of 850 feet where a strata of pure crystal water is reached. In sanitary arrangements there is nothing to be desired. The sewer system extends over the entire city, and by it all the sewage is pumped to an extracting plant located a long distance away on the salt meadows, where it is incinerated and utilized.

Atlantic City's railroad facilities are the most perfect to be found in the country and in the world. The distance from Philadelphia, nearly sixty miles, is covered by trains on both the Pennsylvania and Reading roads at the average rate of considerably less than a mile a minute; in fact, some of the record-breaking runs of the country are frequently made on these roads. During the past summer a regular train covered the entire distance from Camden to Atlantic City, 55 miles, in forty-three minutes. On this run a number of miles were covered at the rate of 115 miles an hour. Of the five fastest trains in the world making daily trips or fifty miles or over, three of them are regular trains between Atlantic City and Philadelphia.

As a place for convalescents Atlantic City has no equal. The salt, pure air, miles of boardwalk along the water's edge, rides in the rolling chairs, and good hotels, many of which have their special diet kitchen where tempting dishes are prepared especially for individual cases, are some of the features that help to make recovery most rapid and pleasant. Doctors of both schools are residents here, many of them being specalists. The Atlantic City Hospital is modern and well-equipped in every particular.

Atlantic City has become probably the most popular place in America for meetings of associations and conventions of all the various interests of the country. Her facilities for accommodating and entertaining these associations are without rival anywhere. She can at all times take care, with her hotel accommodations, of even the largest of these meetings. Her piers and other places of recreation afford them entertainment, and at no place in the country are they more comfortable. The months of May and June, and the last half of September, October and November, are the most perfect months of the year at Atlantic City, and are the months most satisfactory to the various conventions. These are the times when Atlantic City is the least crowded, and when she can better give attention to entertaining such meetings.

SCHOOLS OF ATLANTIC CITY



CHURCHES OF ATLANTIC CITY

Atlantic City Statistics

Permanent population (census 1905)	37,598 people
Average August population one day (estimated)	250,000 people
Total number of visitors in one year (estimated)	18,000,000 people
Number of school children in Atlantic City, January 1, 1906, about	6,000
Estimated number of bathers in surf at one time on good average day in August	40,000 people
Number of hotels, boarding houses and cottages	1,628
Value of real estate	$92,000,000
Length of streets	61.1 miles
Length of water pipes in use	78 miles
Length of iron sewer	42 miles
Length of ocean-front city boardwalk	4½ miles
Length of longest ocean pier	2,804 feet
Length of City Beach-front Park	4½ miles
Number of most prominent hotels accommodating about 500 guests each or over	22
Number of smaller hotels and boarding houses	about 2,500
Number of churches	29
Number of public schools	8
Number of military companies, including Grand Army post and Sons of Veterans	4 11
Number of fire companies	
Number of police officers and patrolmen, summer	90
Number of life guards	55
Number of firemen	140
Number of public school teachers employed	113
Area of Atlantic City	3,066 acres
Area of island between Atlantic City and South Atlantic City	1,101 acres
Area of South Atlantic City	895 acres
Area of Longport	513 acres
Area of entire island	5,575 acres
Acreage of Atlantic City built upon	792 acres
Acreage of island outside of Atlantic City built upon	16 acres
Acreage of entire island built upon	808 acres
Distance from inlet to lower end of Atlantic City	4⅛ miles
Distance from Atlantic City to South Atlantic City	3⅜ miles
Distance from South Atlantic City to Longport	1½ miles
Distance from Longport to lower end of beach	1 mile
Length of entire island	10 miles
Distance from Atlantic City to mainland	5½ miles
Length of boardwalk, from the Inlet wharf to Jackson avenue	4⅛ miles
Erection of boardwalk begun	April 21, 1896
Boardwalk dedicated to public use	July 8, 1896
First permanent resident of the island, Jeremiah Leeds, about	1795
First train to Atlantic City	July 1, 1854
Second railroad (narrow gauge) to Atlantic City opened	July 25, 1877
Second railroad changed to broad gauge by Reading	October 5, 1884
Double track of Reading road first used in	April, 1889
Third railroad to Atlantic City opened	June 16, 1880
First train on Pennsylvania system via Delaware River bridge to Atlantic City	April 19, 1896
Number of newspapers (3 daily and 5 weekly)	8
Number of banks and trust companies (combined capital and surplus of $2,250,000, average deposits, $4,000,000)	7
Number of theaters	5
Number of other places of amusement	hundreds
Number of piers	4
Number of sailing and fishing yachts and power launches	about 125
Golf course (19 holes, 5,900 yards)	1
Number of trolley roads	2
Number of miles of trolley roads	25
Height of lighthouse	167 feet
Distance visible at sea	19 miles
Cost of lighthouse	$52,187

HIGH SCHOOL AND PUBLIC LIBRARY, ATLANTIC CITY

PORTION OF BUSINESS SECTION ATLANTIC CITY

Population of the State

The total population of the United States, according to the census of 1900, was 76,303,387. Of this number 39,059,242 were males and 37,244,145 were females. This includes the 45 states and territories of Alaska, Arizona, District of Columbia, Hawaii, Indian territory, New Mexico and Oklahoma.

The population of New Jersey in 1900 was 1, 883, 660; of this number 941,760 were males and 941,909 were females. The increase of population for the previons decade had been 438,736, the population for 1900 being 1,444,933, and that of 1895 being 1,673,106. In 1800 the populaton of New Jersey was 211,149, the increase for the century being 1,672,520. In 1800 Virginia ranked first with a population of 889,200; Pennsylvania was second with a population of 602,365; New York third with 589,051; North Carolina fourth with 478,103; Massachusetts fifth with 422,845; South Carolina sixth with 345,591; Maryland seventh with 341,548; Connecticut eighth with 251,002; Kentucky ninth with 220,955; New Jersey tenth with 211,149.

In population in 1900 New York ranked first with 7,268,896; Pennsylvania second with 6,302,115; Illinois third with 4,821,550; Ohio fourth with 4,157,545; Missouri fifth with 3,106,665; Texas sixth with 3,048,710; Massachusetts seventh with 2,805,346; Indiana eighth with 2,516,462; Michigan ninth with 2,420,932; Iowa tenth with 2,231,853, Georgia eleventh with 2,216,331; Kentucky twelfth with 2,147,174; Wisconsin thirteenth with 2,069,042; Tennessee fourteenth with 2,020,616; North Carolina fifteenth with 1,893,816; and New Jersey sixteenth with a population of 1,883,669. Then follows Virginia seventeenth with 1,854,184, that ranked first in 1800.

Population of New Jersey, 1790-1900

United States Census Years	Rank.	Population	Increase Number	Increase Per cent.
1900	16	1,883,669	138,736	30.4
1899	18	1,111,933	311,817	27.7
1880	19	1,131,116	225,020	24.8
1870	17	906,096	231,061	31.8
1860	21	672,035	182,180	37.3
1850	19	489,555	116,249	31.1
1840	18	373,306	52,182	16.4
1830	14	320,823	43,397	15.6
1820	15	277,426	31,864	13.0
1810	16	245,562	34,413	16.3
1800	11	211,149	27,010	14.7
1790	10	184,139	.....	...

U. S. Census 1900—State Census 1905

The area of New Jersey is 7,815 square miles including 7525 square miles of land and 290 square miles of water. New Jersey ranks third in density of population, having 250.3 inhabitants to the square mile, and is exceeded by only Massachusetts with not quite 349 and Rhode Island 407 inhabitants per square mile. Then comes Connecticut with 187 inhabitants to the square mile, New York with 152.6, Pennsylvania with 140.1 Maryland 120.5, and Ohio with an average of 102 inhabitants to the sqnare mile.

Increase in Municipalities

The number of incorporated districts in New Jersey increased from 99 in 1890 to 191 in 1900. The residents within these incorporated limits in 1900 were 1,435,714, or 76.2 per cent.—more than three-fourths of the state's entire population. In 1890 such population was 936,016 out of a total of 1,444,933, or 64.8 per cent.

Of the 191 incorporated municipalities in 1900, 10 had a population of 25,000 and upwards each; 17 had 8,000 and under 25,000; 22 had 4,000 and under 8,000; 18 had 2,500 and under 4,000; 44 had 1,000 and under 2,500, while 80 had a population under 1,000.

In the 27 incorporated towns having a population of 8,000 or more such population aggregated 1,153,001, or 61.2 per cent. of the state. In 49 municipalities having a population of 4,000 and upwards, the aggregate was 1,272,259 or 67.5 per cent. of the state; and if we deduct the three principal cities of Newark, Jersey City and Paterson, having over 100,000 and which had a combined population of 557,674, the remaining 46 towns contained 714,585 which was 53.9 per cent. of the urban population, as against the above mentioned 67.5 per cent. of urban population within the state. This percentage of urban population is exceeded by only the three states of New York, with 71.2; Massachusetts, 86.9; and Rhode Island 91.6 of urban population.

Of the increase in the popnation in New Jersey from 1890 to 1900, which was 438,736, the urban population was increased 434,814.

BOARDWALK SCENES, ATLANTIC CITY

The semi-urban increase was from 98,571 in 1890 to 163,465 in 1900, a total of 64,884; while the rural population, which was 508,917 in 1890, decreased to 474,955 in 1900, amounting to 60,962 less in 1900 than in 1890. By semi-urban districts are meant those 142 incorporated towns and villages which have a population of less than 4,000. They may be partly urban and partly rural populations; but to reach a fair approximation to the strictly rural populations as a proportion of the total population of our state, we subtract the urban population, which was 1,272,259 and the semi-urban population, 163,455. We then have as shown above, 477,955 rural inhabitants out of a total population of 1,383,669 as enumerated in the census of 1900. It is difficult to determine the ratio of increase of the urban population since that time, but it is known to be much greater than during the decade above referred to.

The native born population of our state numbers 1,451,785 or 77.1 per cent. of the whole. The foreign born were 431,884, or 22.9 per cent of the whole. The native born increase during the last decade was 335,827, or 30.1 per cent., and the foreign born increase 102,909, or 21.3 per cent. For comparison with these figures we would state that the increase of the native born population of the whole United States was 22.5 per cent. and of foreign born 12.4 per cent.

In the total population of our whole country the white persons number 66,990,788, the colored 9,312,599. These figures include persons of negro descent, 8,840,789; Chinese, 119,050; Japanese, 86,000, and Indians, 266,760. New Jersey's white population in 1900 was 1,812,317, or 96.2 per cent. The colored population including the above enumerated races in New Jersey, numbered 69,844, or 3.8 per cent. of the whole. The increase of the white population for that decade was 415,736, or 29.8 per cent., while the negro populatin increased 22,206 or 46.6 per cent. of their previous number. The number of negroes to each 100,000 whites in 1900 was 3,854, an increase of 443 to each 100,000 whites in 1890. The Chinese population in 1900 was 1,393, an increase of 785 over 1890. The Japanese in 1900 numbered 40; in 1890, 22; in crease 18. The Indians in 1900 numbered 63; in 1890, 84; decrease 21.

The foreign born number 431,884, of which 129,145 arrived in this country since 1890; 152,172 were present in 1890, and 150,567 represent the number present in 1880.

The countries from which they all came are as follows:

Austria	14,728	Mexico	55
Bohemia	1,063	Norway	2,296
Canada (English), including Newfoundland	6,014	Poland (German	1,816
Canada (French) including Newfoundland	1,118	Poland (Russian	8,653
Denmark	3,899	Poland (Austrian) and unknown	3,888
England	45,428	Russia	19,745
France	5,543	Scotland	14,211
Germany	119,598	Sweden	7,337
Holland	10,261	Switzerland	6,570
Hungary	14,913	Wales	1,195
Ireland	94,844	Other countries	6,844
Italy	41,865	Total	431,884

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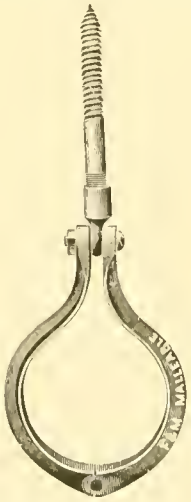

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Political Divisions of New Jersey

Review and History in Outline of the Twenty-one Counties of New Jersey, Showing Their Resources, Attractions and Business Advantages Alphabetically Arranged

Classification of Counties, Cities and Boroughs

Counties

(See act of March 22, 1901.)

First Class.—Having a population exceeding 200,000 Hudson, 449,879; Essex, 409,928.

Second Class.—Having a population of not less than 50,000 nor more than 200,000. Passaic, 175,858; Camden, 121,555; Union, 117,211; Mercer, 110,516; Monmouth, 87,919; Middlesex, 97,036; Bergen, 100,003; Morris, 67,934; Burlington, 62,042; Atlantic, 59,862; Cumberland, 52,110.

Third Class.—Having a population of not less than 20,000 nor more than 50,000. Warren, 40,403; Hunterdon, 33,258; Somerset, 36,270; Gloucester, 34,477; Salem, 26,287; Sussex, 23,325; Ocean, 20,880.

Fourth Class.—All counties not embraced in the first, second or third class. Cape May, 17,390.

Cities

(See act of March 18, 1901.)

First Class.—Having a population exceeding 150,000 Newark, 283,289; Jersey City, 232,699.

Second Class.—Having a population of not less than 12,000 nor more than 150,000. Paterson, 111,529; Camden,83,363; Trenton, 84,180; Hoboken, 65,468; Elizabeth, 60,509; Bayonne, 42,262; Passaic, 37,837; Orange, 26,101; East Orange, 25,175; New Brunswick, 23,133; Amboy, 25,895; Plainfield, 18,468; Montclair, 16,370; Bridgeton; 13,624; Kearney, 13,601; Phillipsburg, 13,352; Harrison, 12,823; Morristown, 12,146.

Third Class.—All cities not embraced within either the first or second class, except cities binding upon the Atlantic ocean and being seaside and summer resorts.

Fourth Class.—All cities binding upon the Atlantic ocean being seaside or summer rsorts.

Boroughs

(See act of March 23, 1883, and Supreme Court decision State, Borough of Highstown, pros., vs. James Glenn, 18 Vr., page 105.)

First Class.—Having a population exceeding 3,000.

Second Class.—Having a population between 1,500 and 3,000.

Third Class. All boroughs and incorporated villages not contained in the first and second classes.

MIDDLESEX COUNTY. LANDING ROAD

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Road Improvement in New Jersey by State Aid

By Henry I. Budd

Improvement in transportation has been the one theme agitating nations progressing from a lower to a higher civilization, through all ages.

When, after centuries of wasting wars, the inhabitants of the many kingdoms of Europe were forced, from sheer exhaustion of material resources, to industrial pursuits, cities developed into great markets, to supply which with the products of the farm and factory necessitated easy transportation. The rural inhabitants along the lines of travel not being able to redeem their impassable morasses, the Government, from necessity, became the main factor in their improvement; until, through many dynasties, the surface of the leading wagon roads of the civilized countries of Europe were hardened and kept in perfect condition, so that at all seasons of the year they are now pleasant to travel over.

No country has developed so rapidly as the United States of America, largely on account of the building of thousands of miles of railroads; yet she possesses more miles of miserable wagon roads than any nation of equal civilization. But we are rapidly awakening to the fact that they must be substituted by something better.

The agitation for the betterment of these conditions resulted, over twelve years ago, in New Jersey having the honor of being the first commonwealth to adopt the plan of state aid. This movement was a new departure which recognized the fact that the highways belong to the public and that all people have the right to use them, regardless of where they live. Previous to this the farmer bore the entire cost of building and maintaining the roads. Under this law, instead of the rural authorities paying the whole cost, it is wisely distributed through state, county and township.

The rural population was at first slow to comprehend the advantages of this law, but a few leading minds earnestly pushed the development until indifference and antagonism, through practical realization of benefits, changed into intense desire, and, under its workings in New Jersey, the sum of $5,285,000 has been spent and contracted for, of which the state has paid one-third and the county and townships two-thirds of the cost. During the eleven years of construction the state has appropriated $1,515,168.55. The counties have spent more than double this sum, as they pay for the bridges, surveying and incidentals. Over one thousand miles of roads have either been graded and permanently improved, or are contracted for, under state aid; while there are applications for the improvement of about five hundred miles more, for which the state has not yet made appropriation. As many more miles have been improved by counties, townships and other municipalities, New Jersey can now present more miles of continuous improved lines than several adjoining states combined.

The pleasure traveler, with automobile, bicycle or carriage team, can speed over continuous roads east and west, north and south, to the extreme limits of the state; in fact, it has become the paradise of motor vehicles, while daily can be seen thousands of heavily loaded market wagons carrying from three to five tons each towards the great markets within and without the state, returning equally well loaded with products for the feeding and fertilizing of the farms.

The value of agricultural land is shown by experience to be in direct ratio to the condition of the roads by which it is reached. With no good roads, land has no value. Thus, along the improved roads in New Jersey, land is advancing in price, in many directions rapidly, and millions of dollars of taxable value have been added to ratables.

Railroads are within seven miles of the majority of the farms. Trolley lines are rapidly following our improved roads. Telephones, gas and water mains, and electric lights are becoming features of country life, making New Jersey in all its parts a most desirable residential, manufacturing and farming state. Attracted by all these advantages, thousands from the overflowing population of our cities are establishing their homes within the borders of our state.

A ROCK CUT IN MERCER CO.

CORLISS AVE. IN MONMOUTH CO.

Stimulated by the success of the New Jersey State Aid Law, neighboring commonwealths are rapidly following in her wake by appropriating millions of dollars for the improvement of their highways.

All the states of the Union are agitating the wisdom of adopting the New Jersey plan, and the prospect is promising that the National Government will, from its great surplus, appropriate large sums to further stimulate the movement.

Thus we may hope that in time even state aid, with its great benefits, will be superseded by national appropriations, which will enable every state in our Union to have good roads.

The wisdom of such appropriations is obvious. In fact, it would seem, from the results already apparent in New Jersey, that the subject is one which will not long remain unagitated in all the states. The demand is growing. The roads already secured for this state have been of decided value. The advantages that have followed are unquestioned. In New Jersey they have brought an already marked increase of population. To the farming centers they have proved a great boon. And whatever a state can do to advance the interests of her agricultural interests redounds to the benefit and material prosperity of her residents in general.

The good roads of New Jersey have not only brought within her borders added residents, but they are daily attracting visitors. Where the trolley goes, improvements in the roads must follow. The automobile has been more effective in securing good roads than have the needs of the people for generations.

New Jersey is proud of having led in this movement. It is one more of the excellent measures in which this state has taken the initiative. Her exhibit in this department at the Louisana Purchase Exhibition is attracting wide attention. It is safe to prophecy that her example will be followed by a number of the states, and the work is one that will constantly increase.

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The Origin of Road Building in New Jersey

By James Owen

Good roads, or the movement looking thereto in New Jersey, began in Essex county in 1868, and, curiously enough, originated in the proposition to establish a park for the city of Newark; the business men of that city feeling that, in the then deplorable condition of the roads and streets of the county it would be more advisable to have good roads for use than to luxuriate in a park. Public interest having been aroused, the first definite step towards road improvement in the state was taken when the legislature of 1868 passed a law establishing the Essex public road board, endowed with general power to lay out streets and highways in the county. The first commission included in its membership Llewellyn S. Haskill founder of Llewellyn Park; William H. Murphy, the father of the present governor, and Francis McGrath. This commission confined itself merely to formulating a general scheme for a complete system of road development for the county, the financial part of the legislative act being incomplete, and submitting a report to the legislature of 1869.

At the session a new law was passed, creating a commission of five, consisting of Messrs. A. Bishop Baldwin, William H. Murphy, Jesse Williams, George Peters and Robert M. Hening, and giving ample powers for the construction of a complete system of roads.

The proposition for road improvement had, during this period of agitation, aroused a strong spirit of opposition outside the city of Newark, except from the then small sections of Orange and Montclair that were peopled by New York business men, who were heartily in favor of the scheme. Meetings of protest were held in all sections of the county, and finally the matter was taken into the courts and a writ of certiorari temporarily stopped the whole proceeding.

In the session of 1870 the law was amended, allowing the commission to build six radiating avenues from the city of Newark as follows:

Washington avenue to Belleville and Nutley.

Bloomfield avenue through Bloomfield and Montclair to Pine Brook.

Park avenue through Orange and Livingstone to Hanover bridge.

South Orange avenue through South Orange to Columbia bridge.

Springfield avenue through Irvington to Milburn.

Frelinghuysen avenue to Elizabeth.

Subsequently Central avenue to Orange was added to the list.

The commission then began work and opened the roads as above outlined, of widths from 80 to 100 feet, and graded them. In 1872 power was granted the commission to pave the roads with Telford pavement, and about 40 miles were improved under this act, affording a system of radiating roads from Newark to all parts of the county, most of them being completed by 1880. Then came a lull in county road work, and the powers of the commission were finally merged into the board of chosen freeholders, and the subsequent county road work was done under the state aid act.

The construction of these roads, which were really the pioneers in the movement, acted as a stimulus to the different municipalities and townships in the country, and about 1872 a general movement was started for the improvement of local thoroughfares. To the city of Orange, however, must be conceded the banner for the first contract for the improvement of any road in Essex county, for in 1867 Mr. Daniel Brennan was awarded the contract for Telfordizing Main street, in that city, the work being completed in 1869, and in 1870 almost all the prominent streets in that city were under contract for improvement.

The township of East Orange took the matter up immediately, continued the improvement of Main street, from Orange to the Newark city line, and also commenced to improve many of its more important streets. These two communities have continued this practice up to date, and it can be stated as a fact that all the highways in Orange and East Orange are now improved. The cost of these improvements in the two places was assessed on the abutting property, a plan which seemingly did not find favor elsewhere. The town of West

WATERMELON FIELD

PEACH EXCHANGE PITTSTON, HUNTERDON COUNTY

Orange, about 1872, started on a different plan, bonded itself for $250,000, and improved a large portion of its main thoroughfares at once. When the money was spent the improvements ceased, and very little effort in road improvement has since been attempted in that town.

The panic of 1873 put a quietus on road improvement for some years, the extent of the work accomplished being merely a few small extensions by the county into Caldwell and Milburn, and the construction of some local streets in the Oranges.

In the period from 1880 to 1882, a general movement seemed to pervade the whole county and many municipalities started to improve their road system by a systematic annual outlay.

Montclair has spent from $10,000 to $15,000 per annum for permanent improvement, and to-day there are very few unimproved roads within its limits. Bloomfield started the same plan, with a similar annual outlay. The work progressed so slowly under this scheme, that about four years ago the town bonded itself for $75,000 and completely finished the town roads.

Belleville and Nutley bonded themselves in 1890, each for $50,000, and improved the roads as far as the money went. Belleville added another $50,000 and finished its roads. Nutley, in the other direction, is finishing its roads from the annual tax levy.

The village of South Orange has almost all its roads improved under an assessment system, and the borough of Glen Ridge has bonded itself to improve all the roads within its limits.

The township of Clinton, now Irvington, the township of South Orange, Milburn and Verona, make appropriations each year for the purchase of broken stone which is spread on the road surface. In some places it is rolled, in others it is allowed to wear smooth by travel: this work can hardly be classed as good road construction.

The townships of Livingston and Caldwell have no system of road improvement on account of the interjection of the state road construction, which began about 10 years ago and has proved a great boon to the agricultural communities west of the Orange mountains, where values are low and the cost of road improvement would be burdensome on the local community. This state road law was passed in 1892, and has been considerably amended since its original passage; but in general it provides that the board of freeholders may take any public road, and, with the consent of the state highway commissioner, improve it at the joint expense of county and state, the latter paying one-third of the cost.

About 87 miles of state roads have been built in this county. This has proved a very popular method of improvement; and in the agricultural section, where the repair of roads is not systematic, good maintenance is assured under the county regime.

Essex county is really the pioneer section of road improvement in the state, and probably in the country. The abundance of good road material has of course materially helped the work; but great credit should also be given to the enterprise of its citizens in fostering the movement, and also to the body of road constructors and contractors who have helped in solving the problem of good road construction. It has been my good fortune to have been professionally associated with the road movement of Essex county since its inception.

Road improvement in New Jersey really began in 1868, when Main street, Orange, was improved with a sixteen-inch Telford pavement. This proved so satisfactory that it was soon extended to the adjoining townships. The residents of other portions of Essex county, seeing its value, began to clamor for a similar road covering and to that end had a law passed known as the Essex County Road Law. Under its provisions the work was pushed forward with such satisfactory results that the adjoining counties of Union, Passaic, Bergen and Hudson soon fell into line and paved sixteen feet in the center of many of their leading thoroughfares. But after a time the cost, particularly in the sparsely settled sections became burdensome; then a remedy was sought by appealing to the state to bear a portion of the expense. After much argument and many objections the state aid law was finally passed in 1892 thanks to the organized efforts of the wheelmen. Under the provisions of this act the state agrees to pay one-third of the cost of the improvement of all highways that shall be approved by it.

From 1893, when the law became actually operative, until the present, the work has gone forward, constantly increasing in popularity, and the demands upon the state have been so great that the annual appropriation has been gradually increased from $75,000 to $250,000, and still our citizens clamor for more.

HOLSTEIN-FRIESIAN DAIRY OF MR. H. D. ROE, SUSSEX COUNTY

BURLINGTON COUNTY. BURLINGTON AND COLUMBUS ROADS

Since the enactment of the road law the state has contributed $1,765,168.55 as its share of the cost of improving 1,044 miles of wagon roads, and there are 102 miles more under construction, thus bringing our mileage up to 1,146.

The influence of the example of the state has stimulated many of the towns, boroughs, villages and townships to improve their highways without waiting for state aid, and by this means another thousand miles have been added to our system of improved highways; thus New Jersey has to-day more miles of good, hard, smooth roads convenient for travel at all seasons of the year than any other two states of the Union combined. These good roads are distributed throughout the state from Sussex in the north to Cape May in the south. They traverse our beautiful mountain region, sweep around our hills or follow the varying courses of our rivers and seacoast, thus enabling the visitors within our borders to enjoy all of the beauties of nature, to breathe the fresh air of the mountain or the salt air of the seashore, with ease and comfort.

The desirability of New Jersey as a place of residence is becoming more and more widely known, and as a consequence the residents of other states are coming to us. We have the natives of a larger number of the states of the Union residing in our country and suburban districts than has any other state, and when asked: "How did you happen to make your home in New Jersey?" the reply almost invariably is: "The good roads first attracted me; then I began to look into the other advantages of New Jersey as a place of residence, and here I am, and here I am going to stay."

New Jersey has been long known as "the paradise of the wheelmen," and it is now becoming equally well known to the automobilist, owing to the fact that we have so many through lines of good roads. These extend from New York through Newark, Elizabeth and New Brunswick, run to and along the shore through Long Branch and Lakewood to Atlantic City, and thence to the city of brotherly love; also from New York through Paterson to the beautiful mountains and Greenwood Lake in the north and from Newark through historic Morristown to picturesque Lake Hopatcong and from Trenton to the seashore at Long Branch.

In addition to these there are many fine, smooth roads leading north and south, connecting the numerous pretty country places for which New Jersey is so justly famous. In short, New Jersey is the paradise of the horseman, wheelman and automobilist. The state enjoys an incalculable advantage in these improved highways. It is an advantage, not alone of simple convenience, but of business economy and facility as well.

New Jersey Brooks, Cities, Counties, Creeks, Islands, Lakes, Mountains, Towns and Rivers.

COUNTIES

Population and Map Number

Population	County	Map No.	Abbr.
[illegible]	Atlantic	L 23	Atl
[illegible]	Bergen	U 6	Ber
[illegible]	Burlington	M 19	Bur
[illegible]	Camden	L 20	Cam
[illegible]	Cape May	K 28	C M
[illegible]	Cumberland	H 24	Cum
[illegible]	Essex	R 8	Esx
[illegible]	Gloucester	H 21	Glo
[illegible]	Hudson	T 8	Hud
[illegible]	Hunterdon	J 10	Hun
[illegible]	Mercer	M 14	Mer
[illegible]	Middlesex	R 12	Mid
[illegible]	Monmouth	R 15	Mon
[illegible]	Morris	O 7	Mor
[illegible]	Ocean	R 17	Oce
[illegible]	Passaic	R 5	Pas
[illegible]	Salem	F 22	Sal
[illegible]	Somerset	N 11	Som
[illegible]	Sussex	L 4	Sus
[illegible]	Union	R 10	Un
40,3[illegible]	Warren	J 7	War.

BROOKS AND CREEKS

Alloways	D 23
Assunpink	N 13
Assiscunk	L 17
Beaver Brook	I 7
Big Flat Brook	L 3
Big Timber	G [illegible]
Blacks	M 16
Cedar	L 24
Cedar	H 19
Cohansey	F 25
Coopers	C 5
Crosswicks	N 16
Deep Run	R 13
Doctors	N 15
Green Brook	O 11
Haines	L 19
Hop Brook	S 14
Hurricane Brook	Q 18
Rancocas	K 17
Rancocas, North Branch	P 19
Rancocas, South Branch	O 19
Little Flat Brook	L 3
Lubbers Run	M 6
Manalapan Brook	Q 14
Manantico	J 25
Mannington	D 22
Mannumuskin	J 25
Matchaponix Brook	Q 13
Mill	R 21
Muddy Run	H 23
Nescochaque	L 21
Old Mans	E 21
Overpeck	V 7
Oyster	R 29
Pensauken	F 4
Raccoon	F 20
Salem	D 22
Springers	M 20
Stow	E 21

ISLANDS

Absecon Beach	P 25
Brigantine Beach	Q 25
Island Beach	T 29
Long Beach	S 23
Pecks Beach	N 27
Seven Mile Beach	M 29

LAKES

Budd	L 7
Culvers Pond	
Denmark	O 6
Green Pond	O 5
Greenwood	Q 4
Hanks Pond	P 5
Hopatcong	N 6
Long Pond	L 4
Lower Pond	O 4
Mashipakong Pond	M 2
Morris Pond	N 5
Splitrock Pond	P 6
Swartswood	K 5
Wawayanda	Q 3

MOUNTAINS

Copperas	P 5
Cushetunk	L 10
Bearfort	P 4
Jenny Jump	J 7
Kanouse	P 6
Kittatinny	K 4
Mine	N 9
Musconetcong	H 10
Pochuck	O 3
Pohatcong	I 9
Sparta	M 6
Wawayanda	P 3

RIVERS

Atsion	L 20
Batsto	M 21
Black	M 10
Blackwater Branch of Maurice	I 23
Bates Mill	N 19
Chase	N 3
Davenport Branch of Toms	R 18
East Branch of Wading	Q 20
Forked	R 20
Great Egg Harbor	K 22
Hackensack	U 8
Hospitality Branch of Great Egg Harbor	J 22
Lebanon Branch of Maurice	H 24
Manasquan	S 15
Maurice	I 26
Mechesactauxin Branch of Atsion	M 21
Millstone	N 12
Millstone Branch of Millstone	N 14
Musconetcong	I 9
Navesink	U 14
Neshanic	K 12
North Branch of Metedeconk	R 17
North Raritan	N 10
Papakating	N 4
Papoose Branch of Wading	P 20
Passaic	Q 8
Paulins	K 5
Pequest	I 7
Ramapo	S 5
Raritan	L 11
Ridgeway Branch of Toms	Q 17
Rockaway	P 7
Shark	T 17
Shrewsbury	V 13
South Branch of Metedeconk	R 16
Toms	R 17
Union Branch of Toms	R 17
Wading	O 22
Wallkill	M 3
Wallkill	O 2
Wanaque	R 6
West Branch of Wading	O 21

POST OFFICES

A

Population	Post-office	Co'n'ty	Map No.
616	Absecon,	Atl.,	O 25
200	Adamston,	Oce.,	T 17
800	Adelphia,	Mon.,	S 15
50	Aldine,	Sal.,	E 23
125	Allaire,	Mon.,	T 16
700	Allamuchy,	War.,	L 6
762	Allendale,	Ber.,	T 5
217	Allenhurst,	Mon.,	V 15
643	Allentown,	Mon.,	O 15

* Part of O ange

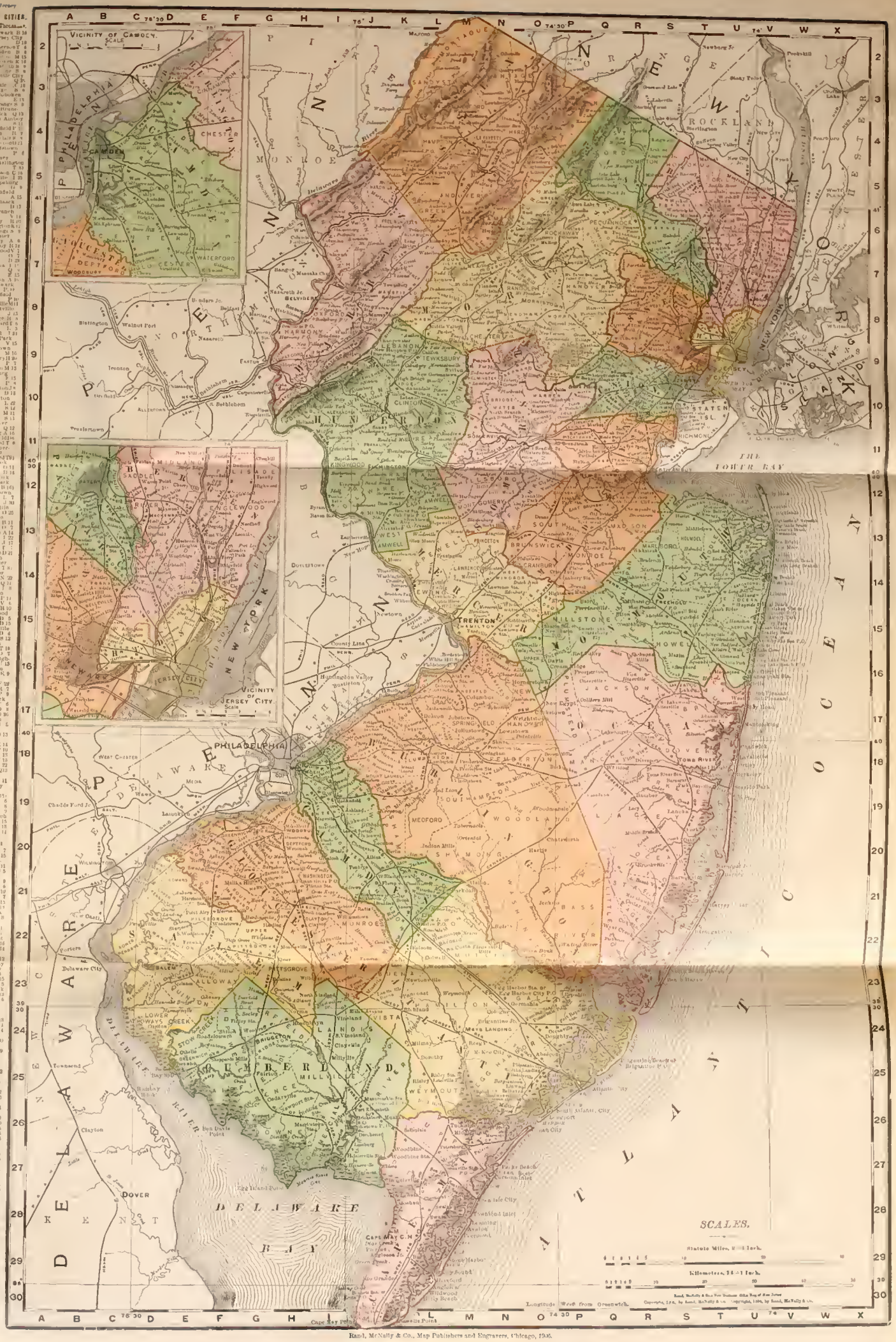
[illegible]

* Employees reside in Elizabeth.

[illegible]

* Farming Community.

[illegible]



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